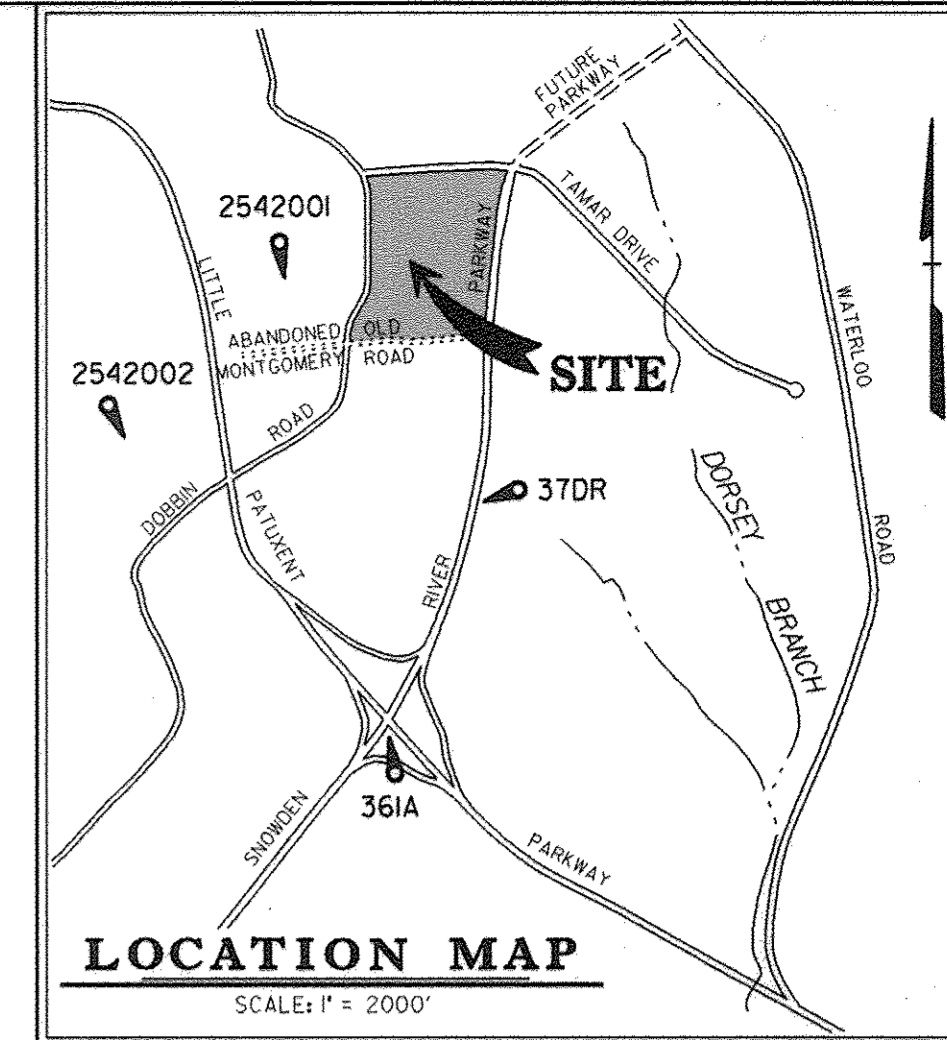


SITE DEVELOPMENT PLAN EASTERN HIGH SCHOOL

VILLAGE OF LONGREACH
SECTION 3, AREA 2
HOWARD COUNTY, MARYLAND

INDEX OF DRAWINGS 1

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28 OF 32	SEDIMENT & EROSION CONTROL DETAILS
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30 OF 32	LANDSCAPE PLAN
31 OF 32	LANDSCAPE PLAN
32 OF 32	LANDSCAPE PLAN



BENCHMARK
DESCRIPTION
STATION 37DR (1/4" REBAR)
N16988U794, E416566.7551 (FOR HORIZONTAL CONTROL ONLY)
STATION IS LOCATED 0.45 ± MILES NORTH OF RTE. 175
AND 46' ± EAST OF THE EAST CURB OF SNOWDEN RIVER PARKWAY

BENCHMARK
DESCRIPTION
STATION 2542001 (CONCRETE MONUMENT)
ELEV. 426.971 (FOR VERTICAL CONTROL ONLY)
STATION IS LOCATED ON BG&E TRANSMISSION
LINES 1060' ± S.W. OF DOBBIN ROAD

BENCHMARK
DESCRIPTION
STATION 361A (CONCRETE MONUMENT)
N169205.9263, E416313.519 (FOR HORIZONTAL CONTROL ONLY)
STATION IS LOCATED AT THE SOUTHEAST CORNER OF THE
INTERSECTION OF SNOWDEN RIVER PARKWAY AND RTE. 175
3 ± FROM CURB AND 5 ± FROM GUARDRAIL END

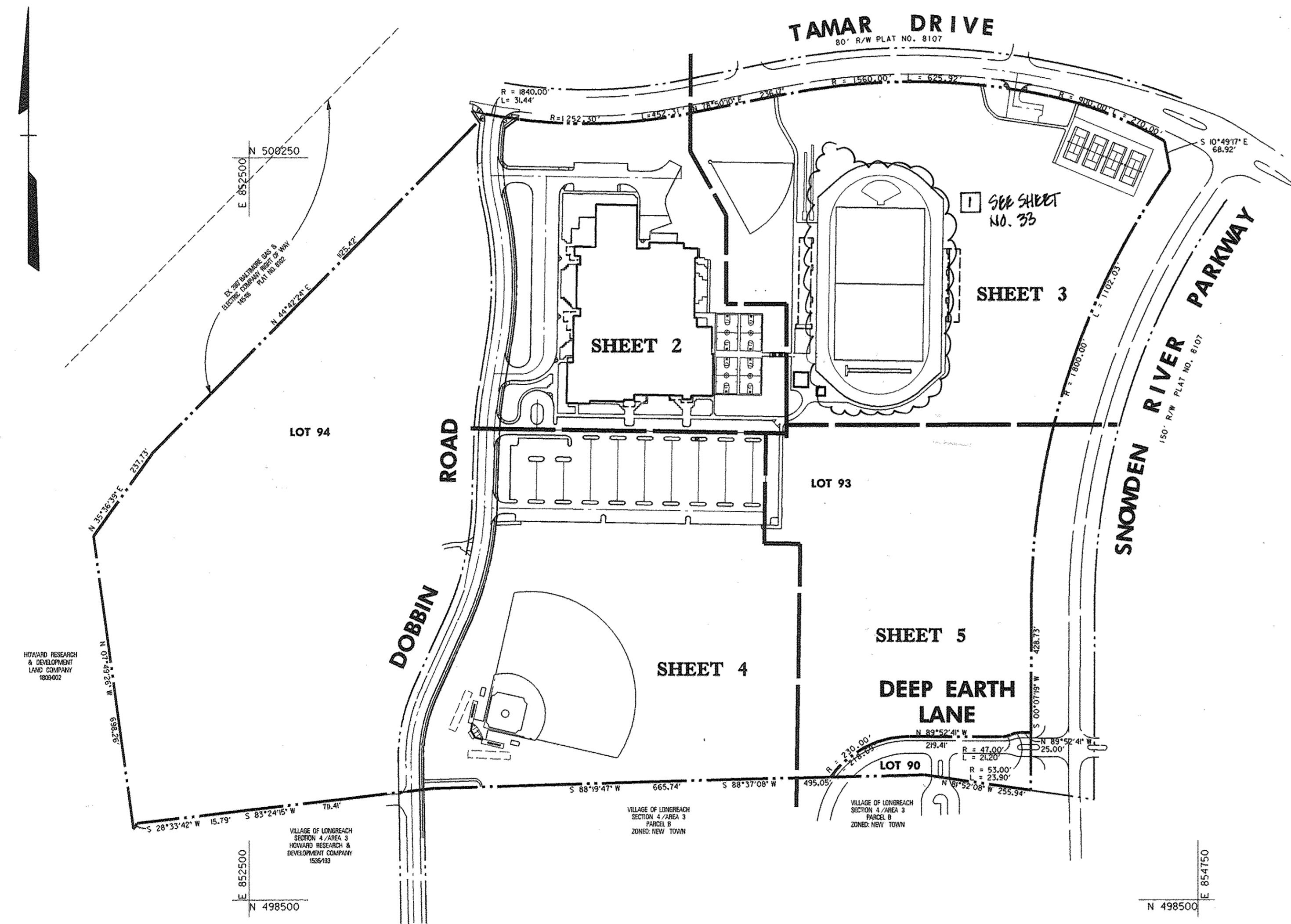
BENCHMARK
DESCRIPTION
STATION 2542002 (CONCRETE MONUMENT)
ELEV. 363.638 (FOR VERTICAL CONTROL ONLY)
STATION IS LOCATED 1000' WEST OF RTE. 175
ON TRANSMISSION LINE AT G. & E. TOWER 19-E
NEAR HANOVERS RESTAURANT ENTRANCE

General Notes

- Horizontal Datum: NAD 27
Vertical Datum: NGVD 29
- Topography shown hereon is taken from aerial data dated 1992 prepared for the Howard County Public School System by PDS, Inc., and is updated by field survey by DMW performed in October 1993.
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications, if applicable.
- Approximate location of existing utilities are shown from best available information. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
- The contractor shall test pit existing utilities at least five days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the engineer immediately if location of utilities is other than shown.
- Contractor to notify the following utilities or agencies at least five days before starting work shown on these drawings:

Miss Utility	1-800-257-7777
C&P Telephone Company	725-9976
Howard County Bureau of Utilities	313-4900
AT&T Cable Location Division	393-3553
Baltimore Gas & Electric Company	685-0123
State Highway Administration	531-5533
Howard County Dept. of Public Works / Bureau of Engineering/Construction Inspection Division	313-1880
- This property is located within the Howard County Metropolitan District. Sewer service is by private connection to existing public sewer. Water service is public to all on site hydrants; connection to building is private. Public water contract 44-3338-D
- Wetland evaluation prepared by Daff-McCune-Walker, Inc., December 1992.
- Traffic study prepared by Wells and Associates September 27, 1993.
- All water lines shall be constructed with a minimum 48-inch cover below finished grade.
- All pipe elevations shown are invert elevations.
- The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole walls.
- Profile stations shall be adjusted as necessary to conform to plan dimensions.
- No pipe shall be laid until lines of excavation have been brought to subgrade.
- All plan dimensions are to face of curb unless otherwise noted.
- The developer is responsible for the acquisition of all easements, rights, and/or rights-of-way that may be required for the sediment and erosion control practices, stormwater management practices, and the discharge of stormwater onto or across adjacent or downstream properties included in this plan. He is also responsible for the acquisition of all easements, rights, and/or work on adjacent properties included in this plan.
- Elevators are provided within the building.
- The building will be provided with a sprinkler system.
- Old Montgomery Road was abandoned per Resolution No. 5 dated April 11, 1988. The abandoned Old Montgomery Road paving will be removed by others.
- All elevations in road areas are to bottom of curb unless noted otherwise.
- Earthwork volumes shown on sheet 27 of 32 are for sediment and erosion control processing only and shall not be used for bidding purposes before submitting bid required to provide completed site at the finished elevations indicated on the contract documents.
- Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- A floodplain study for the main drainage way through the site was done by Purdum & Jeschke in December, 1988. This study was revised and updated by a study done by Daff - McCune - Walker, Inc. in December, 1993. Floodplain study approved by DPW on January 10, 1994.
- Stormwater management for the site is provided by existing quantity SWM facilities on the eastern and southern sides of the site. Quality management is proposed to be provided by an expansion of the existing quality pond in the southeast corner of the site. Maintenance to be by county for public facility.
- For other public plans reference the following:
FDP Phase 197A-II Part II
Dobbin Road F-94-74
Sewer S-88-29
- It shall be the responsibility of the contractor for the improvement to Dobbin Road to maintain access to the school site at all times.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 14 April 94

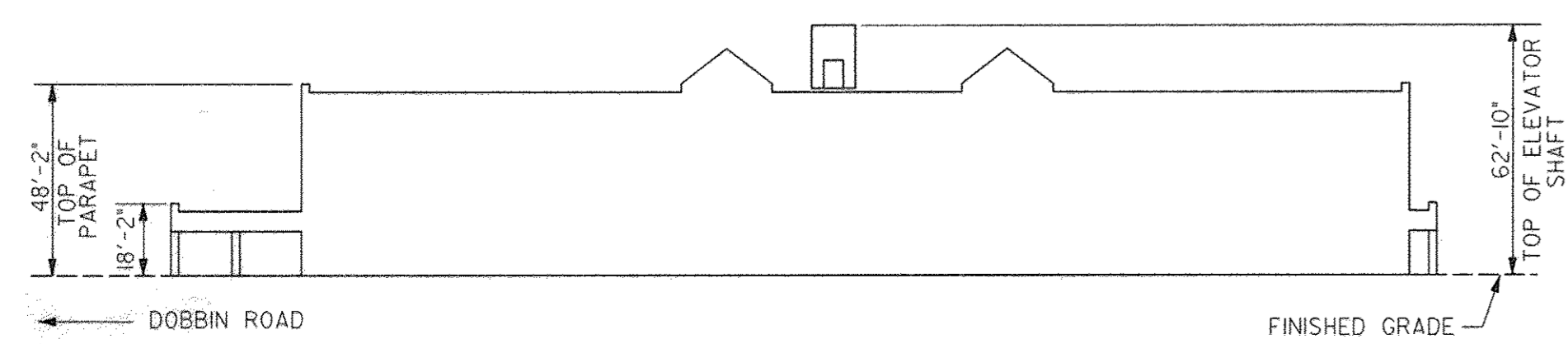


NOTE: 8/18/16 - CAPITAL PROJECT D-1160 REVEALED THE EXISTING WATER QUALITY FACILITY TO IMPROVE WATER QUALITY TREATMENT, FUNCTIONALITY AND MAINTAINABILITY OF THE SYSTEM. THE WATER QUALITY POND WAS EXCAVATED TO INCREASE WATER QUALITY STORAGE.

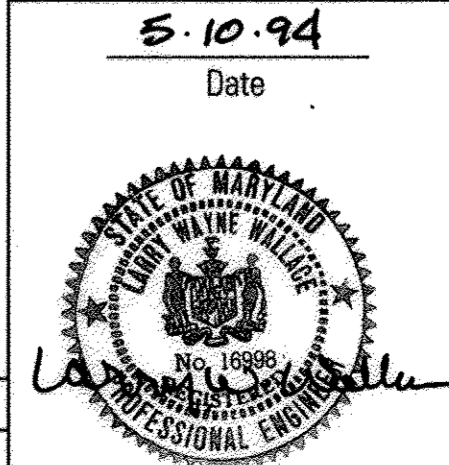
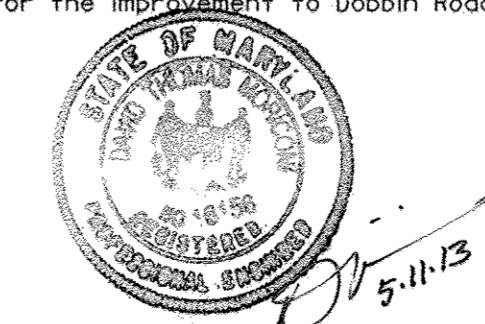
PLAN VIEW
SCALE: 1" = 200'

Site Analysis

1. Total Area of Parcels	49,965 Acres (2,176,432 s.f.)
2. Present Zoning:	New Towns Open space
3. Proposed Use:	High School and related recreational facilities
4. Floor Area:	1st Level 121,438 s.f. 2nd Level 58,705 s.f. 3rd Level 53,864 s.f. Total 234,007 s.f.
5. Building Coverage Permitted:	217,643 s.f. (4.99 Ac.) = 10% of Gross Tract Area
Building Coverage Proposed:	126,168 s.f. (2.9 Ac.) = 5.8% of Gross Tract Area
6. Parking Proposed:	458 spaces (includes 10 handicapped spaces and 4 van accessible handicapped spaces)
7. Area of Paved Parking Lots and Drive Aisles:	211,101 s.f. (4.846 Ac.) = 9.7% of Gross
8. Open Space Tabulation	49,965 Ac.
Open Space Land Use (Entire Parcel)	45.19 Ac. (90.3%)
Open Space Credited	4.846 Ac.



EAST - WEST BUILDING PROFILE
1" = 40'



SEAL APPLIES TO REDLINE REVISION No. 1

ADDRESS CHART

LOT NUMBER	STREET ADDRESS

Professional Engr. No. 16998

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<i>Joyce M. Boyd</i> COUNTY HEALTH OFFICER	6-23-94 DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>James S. Smith</i> DIRECTOR	6/29/94 DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>Anna Surmanovic</i> CHIEF, LAND DEVELOPMENT & RESEARCH	6/28/94 DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>James J. Lee</i> DIRECTOR	6/21/94 DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>David P. Walker</i> CHIEF, BUREAU OF ENGINEERING	6/20/94 DATE

EASTERN HIGH SCHOOL
OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Daff-McCune-Walker, Inc.
300 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3033
Fax: 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

SUBDIVISION	VILLAGE OF LONGREACH	SECTION/AREA	SEC. 3 / AREA 2	LOT/PARCEL #	93 / 657
PLAT OR LE	11270-73	BLOCK #	36	ELECT. DISTRICT	6067.03
WATER CODE	E 06	SEWER CODE	3530000		

TITLE
COVER SHEET

Des By	MAT	Scale	1" = 200'	Proj. No.	92087A
Drn By	DMA	Date	1-12-94		
Chk By	LWW	Approved			1 OF 32

ALL GRADING & UTILITY CONSTRUCTION OCCURRING WITHIN THE 25' WETLAND BUFFER IS PART OF THE PUBLIC ROAD PLANS FOR THE WIDENING OF DOBBIN ROAD & IS NOT PART OF THIS SITE DEVELOPMENT PLAN

FIRE HYDRANT FLOW TEST CONDUCTED BY HOWARD COUNTY BUREAU OF UTILITIES ON 10-8-93. G AT FLOW HYDRANT WAS 1405 GPM WITH RESIDUAL PRESSURE EQUAL TO 73 PSIG AT BACK HYDRANT. WATER ZONE IS 800 EAST.

SITE LIGHTING LEGEND

- SINGLE LUMINAIRE LAMP ON 30' H. SQUARE POLE W/CONC. BASE
- TWIN LUMINAIRE LAMP ON 30' H. SQUARE POLE W/CONC. BASE
- THREE LUMINAIRE LAMP ON 30' H. SQUARE POLE W/CONC. BASE
- FOUR LUMINAIRE LAMP ON 30' H. SQUARE POLE W/CONC. BASE

(SEE ELECTRICAL DRAWINGS FOR FINAL LOCATION AND TYPE OF FIXTURES)

TRAFFIC SIGNAL LEGEND

- ⊙ A STOP SIGN
- ⊙ B DO NOT ENTER SIGN
- ⊙ C BUSES ONLY SIGN

NOTE: ALL SIGNAGE SHALL MEET THE M.U.T.C. LATEST EDITION STANDARDS

PLAN LEGEND

- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- PROPOSED WATER
- ▨ PROPOSED HC RAMP AREAS AT W/LOVINGS
- ▨ PROPOSED CONC. WALK AND SCOURING PATTERN
- ▨ PROPOSED CONC. WALK AREAS SHOWN ON ARCHITECTURAL DWGS.
- ▨ PROPOSED BIT CONC. PAVING OTHER THAN EXISTING
- ▨ PROPOSED REVERSE CONC. CURB AND GUTTER
- ▨ PROPOSED LAWN AREAS TO RECEIVE 1" LAYER OF TOPSOIL - ALL OTHER LAWN AREAS SHALL RECEIVE A 1" LAYER
- ▨ PROPOSED LIMIT OF VEGETATION TO REMAIN IN UNDISTURBED AREAS
- PROPOSED CHAIN LINK FENCE AND GATE SEE PLAN FOR SIZE AND REFERENCE
- ▨ PROPOSED PAVEMENT STRIPING FOR CROSSWALK AND HC AREAS - 1" WIDE WHITE PAINTED STRIPES 12" O.C.
- ▨ LIMIT OF WORK (EXCEPT FOR ALTERNATE #1)
- ▨ FILL AREA TO BE SLOPED & PROVED

NOTE: FOR LIMIT OF WORK FOR SEDIMENT CONTROL MEASURES, SEE SEDIMENT & EROSION CONTROL PLANS, DWGS 17-28 OF 32

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<i>Joseph M. Boyd</i> COUNTY HEALTH OFFICER	6-23-94 DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>James R. Smith</i> DIRECTOR	6/29/94 DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC WORKS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>Jim Arumanki</i> CHIEF, LAND DEVELOPMENT & RESEARCH	6/28/94 DATE
	<i>James R. Smith</i> DIRECTOR	6/21/94 DATE
	<i>Richard P. ...</i> CHIEF, BUREAU OF ENGINEERING	6/20/94 DATE

5-2013	1	REDO LINE REVISION NO. 1 - CHANGED SHT NO.
Date	No.	Revision Description

EASTERN HIGH SCHOOL

OWNER /DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

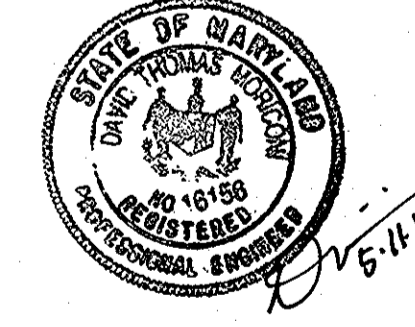
DMW
D. M. Williams & Associates, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3325
Fax 296-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION	VILLAGE OF LONGREACH	SECTION	SEC. 3 AREA 2	LOT/PARCEL #	93 /657
PLAT ON WHICH	11720-731	TAXING MAP	6TH	GENUS TRACT	6087.03
WATER CODE	E 05	SEWER CODE	3530000		

SITE DEVELOPMENT PLAN

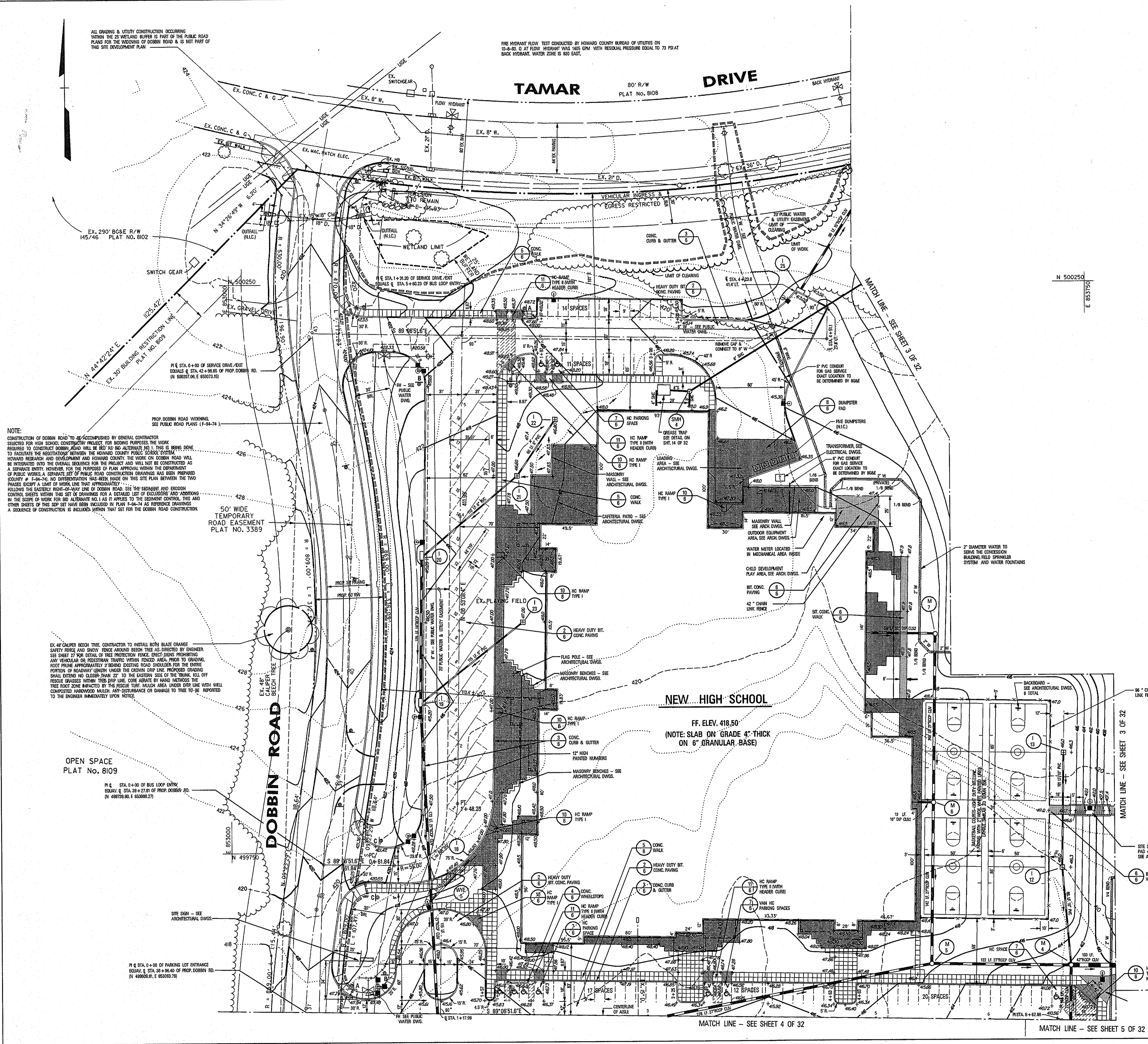
Des By	MAT/CEV	Scale	1" = 40'	Proj. No.	92087A
Dwn By	MAT/DMA	Date	1-12-94		
Chk By	LWW	Approved			2 OF 32 Shts.



5.10.94
Date



Professional Engr. No. 16998



NOTE:
CONSTRUCTION OF DOBBIN ROAD TO BE ACCOMPLISHED BY GENERAL CONTRACTOR SELECTED FOR HIGH SCHOOL CONSTRUCTION PROJECT FOR BIDDING PURPOSES. THE WORK REQUIRED TO CONSTRUCT DOBBIN ROAD WILL BE 80' TO 80' ALTERNATE NO. 1. THIS IS BEING DONE TO FACILITATE THE NEGOTIATIONS BETWEEN THE HOWARD COUNTY PUBLIC SCHOOL SYSTEM, HOWARD RESEARCH AND DEVELOPMENT AND HOWARD COUNTY. THE WORK ON DOBBIN ROAD WILL BE INTEGRATED INTO THE OVERALL SEQUENCE FOR THE PROJECT AND WILL NOT BE CONSTRUCTED AS A SEPARATE ENTITY. HOWEVER, FOR THE PURPOSES OF PLAN APPROVAL WITHIN THE DEPARTMENT OF PUBLIC WORKS, A SEPARATE SET OF PUBLIC ROAD CONSTRUCTION DRAWINGS HAS BEEN PREPARED (COUNTY # 1-94-74). NO DIFFERENTIATION HAS BEEN MADE ON THIS SITE PLAN BETWEEN THE TWO PHASES EXCEPT A LIMIT OF WORK LINE THAT APPROXIMATELY:
FOLLOWS THE EASTERN RIGHT-OF-WAY LINE OF DOBBIN ROAD. SEE THE SEDIMENT AND EROSION CONTROL SHEETS WITHIN THIS SET OF DRAWINGS FOR A DETAILED LIST OF EXCLUSIONS AND ADDITIONS IN THE SCOPE OF WORK FOR BID ALTERNATE NO. 1 AS IT APPLIES TO THE SEDIMENT CONTROL, THIS AND OTHER SHEETS OF THIS SET HAVE BEEN INCLUDED IN PLAN 1-94-74 AS REFERENCE DRAWINGS. A SEQUENCE OF CONSTRUCTION IS INCLUDED WITHIN THIS SET FOR THE DOBBIN ROAD CONSTRUCTION.

OPEN SPACE
PLAT No. 8109

SITE SIGN - SEE ARCHITECTURAL DWGS.

PI @ STA. 0+00 OF PARKING LOT ENTRANCE
EQUIV. @ STA. 38+99.40 OF PROP. DOBBIN RD.
(N 499739.90, E 653089.77)

PI @ STA. 0+00 OF SERVICE DRIVE (DOT)
EQUIV. @ STA. 42+98.86 OF PROP. DOBBIN RD.
(N 500207.00, E 653073.15)

PI @ STA. 0+00 OF SERVICE DRIVE (DOT)
EQUIV. @ STA. 42+98.86 OF PROP. DOBBIN RD.
(N 500207.00, E 653073.15)

TAMAR

DRIVE

PARKWAY

RIVER

SNOWDEN

STADIUM

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

James M. ... 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James ... 6/29/94
DIRECTOR DATE
Uma ... 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James ... 6/2/94
DIRECTOR DATE
Paul ... 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

5-2013 [] REDLINE REVISION NO. 1 - CHANGED SHFT. NO.
Date No. Revision Description

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW

Dan McCreary-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 294-3333
Fax 294-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

DISCUSSION: VILLAGE OF LONGBRACH SECTION: REC. 3 / AREA 2 DWPARCEL # 93 / 657
DATE OF EX. BLOCK # 11270-73 PLANING MAP # 1001, DISTRICT 3E CHANGES TRACT 6067.03
WATER CODE: E 06 SEWER CODE: 3530000

SITE DEVELOPMENT PLAN

Des By MATCEV Scale 1" = 40' Proj. No. 92087A
Dm By MATDMA Date 1-12-94
Chk By LWW Approved 3 OF 32 34

5-10-94
Date



Professional Engr. No. 16998

NOTE:
FOR LIMIT OF WORK FOR SEDIMENT CONTROL
MEASURES, SEE SEDIMENT & EROSION CONTROL
PLANS, DWGS 17-26 OF 32

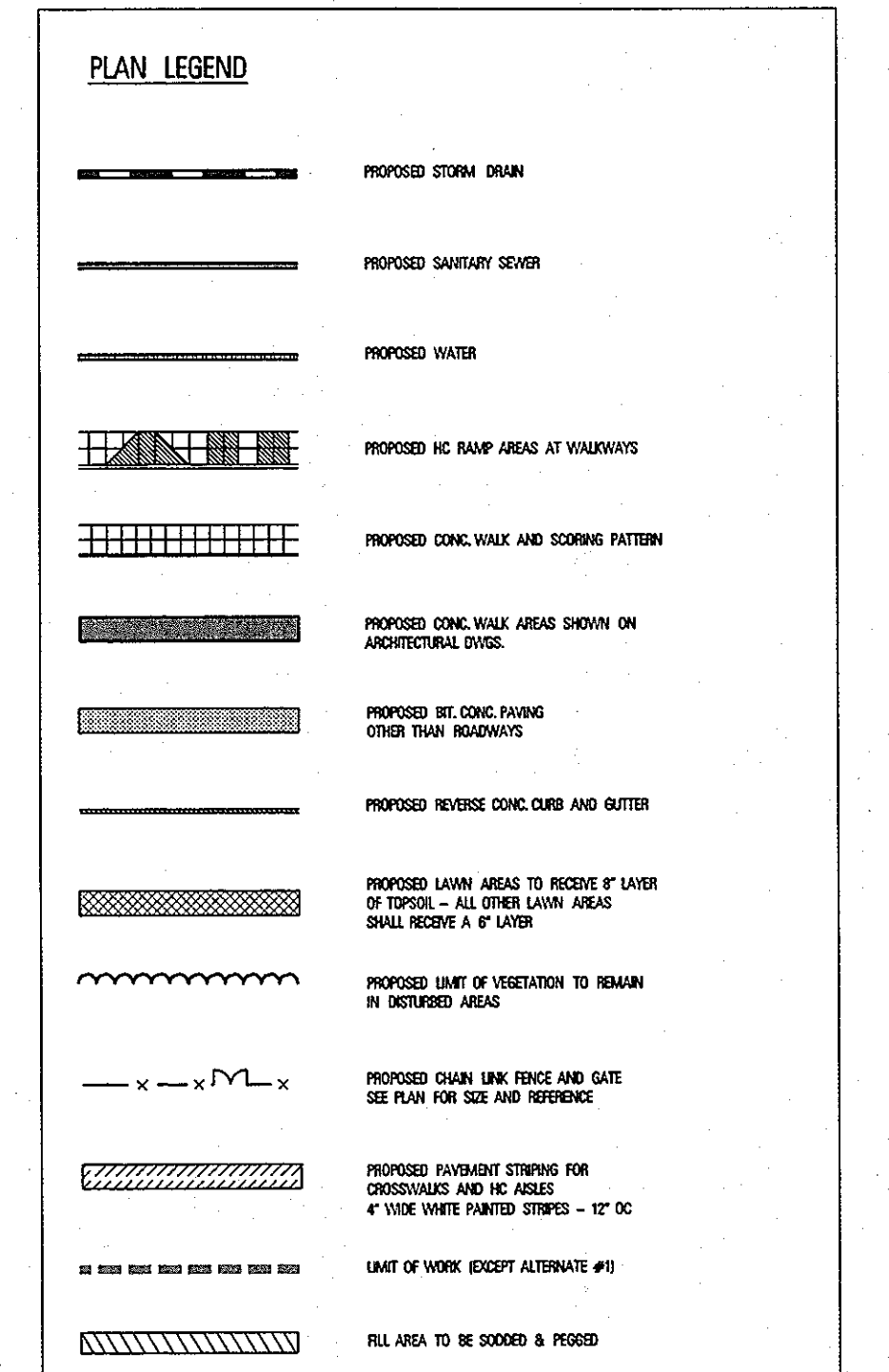
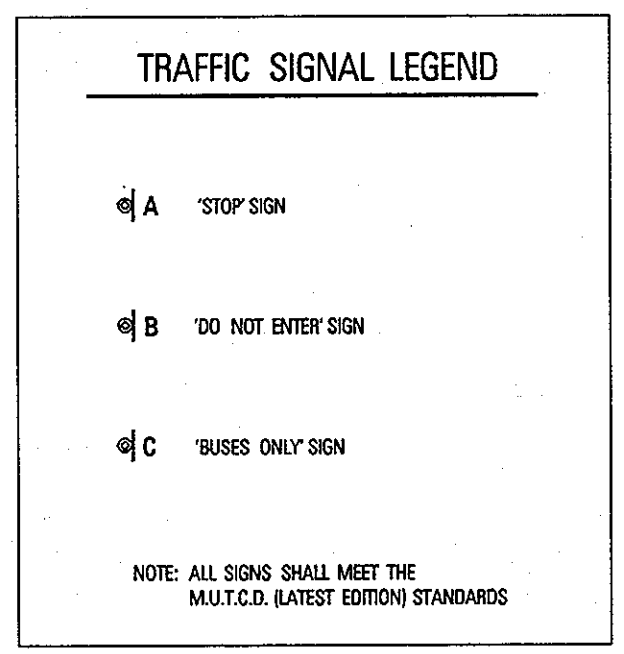
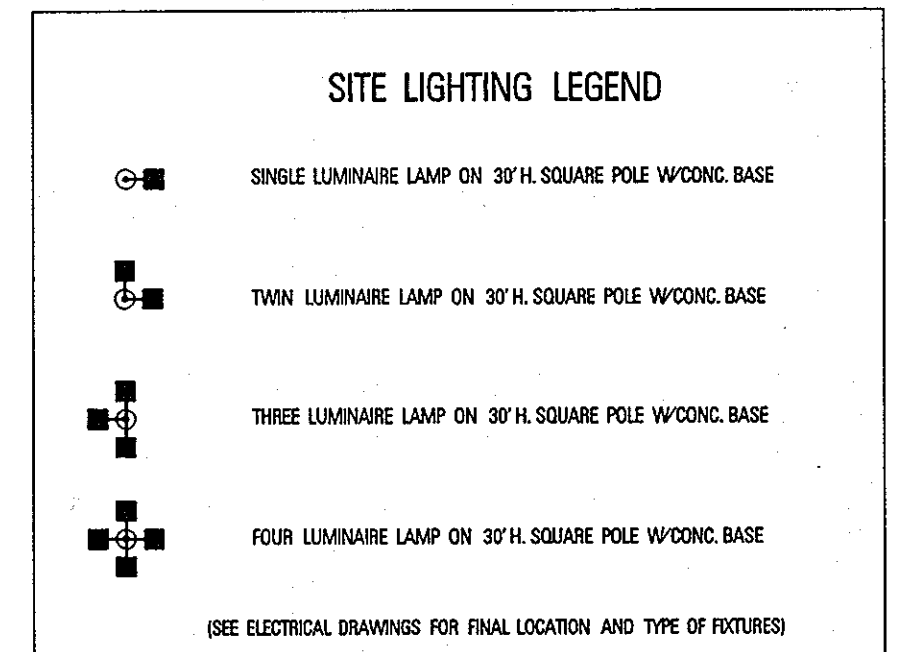
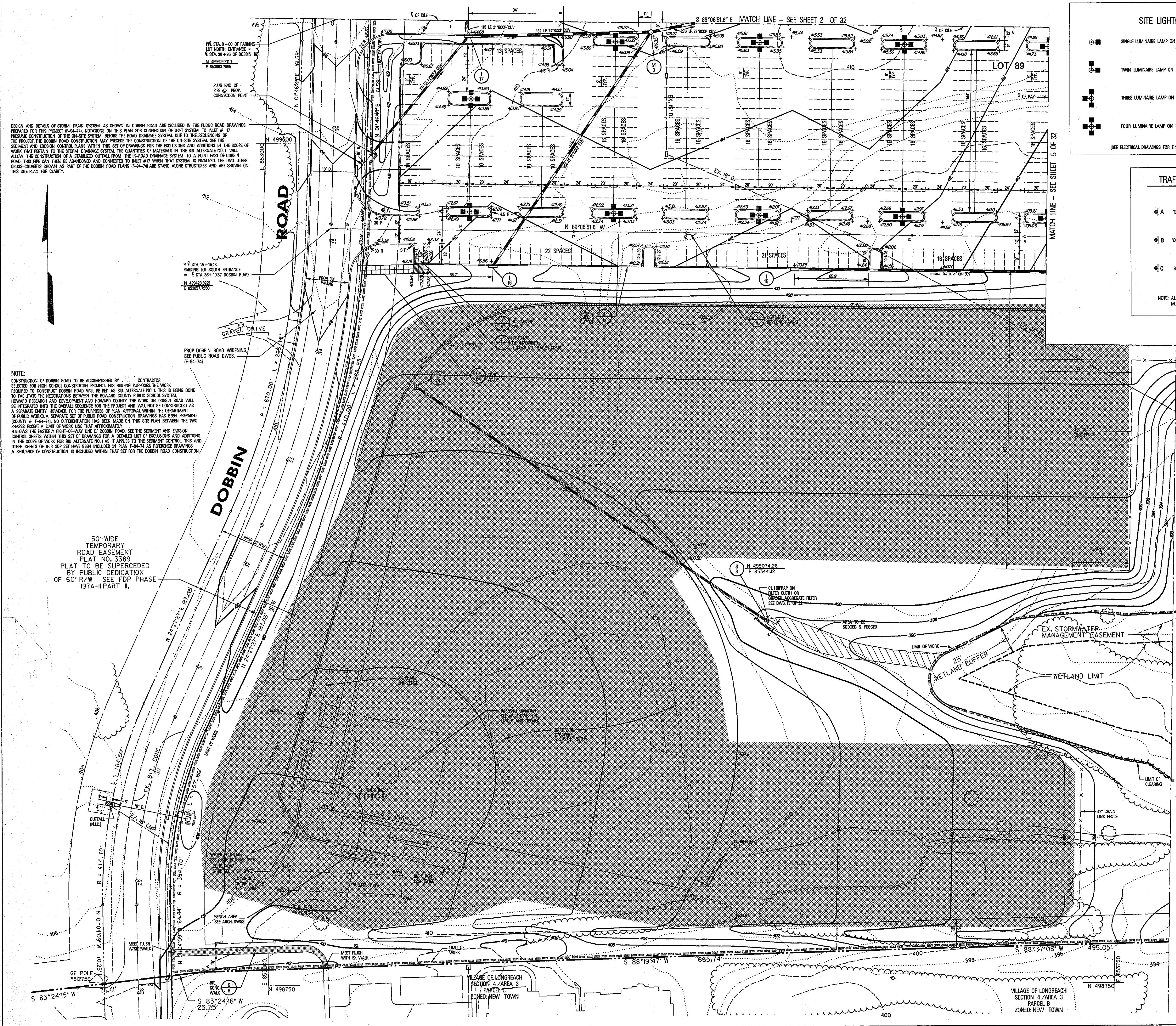
SITE LIGHTING LEGEND
● SINGLE LUMINAIRE LAMP ON 30" H. SQUARE POLE
WITH CON. BASE
● TWIN LUMINAIRE LAMP ON 30" H. SQUARE POLE
WITH CON. BASE
SEE ELECTRICAL DRAWINGS FOR FINAL
LOCATION AND TYPE OF FIXTURES

TRAFFIC SIGNAL LEGEND
A STOP SIGN
B NO ENTER SIGN
C TRUCKS ONLY SIGN
NOTE: ALL SIGNS SHALL MEET THE
LATEST CURRENT SIGNING STANDARDS

PLAN LEGEND
--- PROPOSED STORM DRAIN
--- PROPOSED SANITARY DRAIN
--- PROPOSED WATER
--- PROPOSED NO RAMP AREAS AT WALKWAYS
--- PROPOSED CONC. WALK AND SCORING PATTERN
--- PROPOSED CONC. WALK AREAS SHOWN ON
ARCHITECTURAL DWGS.
--- PROPOSED BIT CONG. PAVING
OTHER THAN ROADWAYS
--- PROPOSED REVERSE CONC. CURB AND GUTTER
--- PROPOSED LAWN AREAS TO RECEIVE 1" LAYER
OF TOPSOIL - ALL OTHER LAWN AREAS
SHALL RECEIVE 4" LAYER
--- PROPOSED LIMIT OF VEGETATION TO REMAIN
IN DISTURBED AREAS
--- PROPOSED CHAIN LINK FENCE AND GATE
SEE PLAN FOR SIZE AND REFERENCE
--- PROPOSED FANSHED STRIPING FOR
CROSSWALKS AND H. ASBLES
4" WIDE WHITE PAINTED STRIPES - 12" OC
--- LIMIT OF WORK
--- 100 YR. FLOODPLAIN

MATCH LINE - SEE SHEET 2 OF 32

MATCH LINE - SEE SHEET 5 OF 32



DESIGN AND DETAILS OF STORM DRAIN SYSTEM AS SHOWN IN DOBBIN ROAD ARE INCLUDED IN THE PUBLIC ROAD DRAWINGS PREPARED FOR THIS PROJECT (9-94-74). NOTATIONS ON THIS PLAN FOR CONSTRUCTION OF THAT SYSTEM TO INLET # 17 PRESERVE CONSTRUCTION OF THE ON-SITE SYSTEM BEFORE THE ROAD DRAINAGE SYSTEM DUE TO THE SEQUENCING OF THE PROJECT. THE DOBBIN ROAD CONSTRUCTION MAY PROCEED THE CONSTRUCTION OF THE ON-SITE SYSTEM. SEE THE SEDIMENT AND EROSION CONTROL PLANS WITHIN THIS SET OF DRAWINGS FOR THE EXCLUSIONS AND ADDITIONS IN THE SCOPE OF WORK THAT PERTAIN TO THE STORM DRAINAGE SYSTEM. THE QUANTITIES OF MATERIALS IN THE 80' ALTERNATE NO. 1 WILL ALLOW THE CONSTRUCTION OF A STABILIZED OUTFALL FROM THE IN-Road DRAINAGE SYSTEM TO A POINT EAST OF DOBBIN ROAD. THIS PIPE CAN THEN BE ABANDONED AND CONNECTED TO INLET #17 WHEN THAT SYSTEM IS FINALIZED. THE TWO OTHER CROSS-CULVERTS SHOWN AS PART OF THE DOBBIN ROAD PLANS (9-94-74) ARE STAND ALONE STRUCTURES AND ARE SHOWN ON THIS SITE PLAN FOR CLARITY.

NOTE:
CONSTRUCTION OF DOBBIN ROAD TO BE ACCOMPLISHED BY CONTRACTOR SELECTED FOR HIGH SCHOOL CONSTRUCTION PROJECT FOR BIDDING PURPOSES THE WORK REQUIRED TO CONSTRUCT DOBBIN ROAD WILL BE BID AS BID ALTERNATE NO. 1. THIS IS BEING DONE TO FACILITATE THE NEGOTIATIONS BETWEEN THE HOWARD COUNTY PUBLIC SCHOOL SYSTEM, HOWARD RESEARCH AND DEVELOPMENT AND HOWARD COUNTY. THE WORK ON DOBBIN ROAD WILL BE INTEGRATED INTO THE OVERALL SEQUENCE FOR THE PROJECT AND WILL NOT BE CONSTRUCTED AS A SEPARATE ENTITY. HOWEVER, FOR THE PURPOSES OF PLAN APPROVAL WITHIN THE DEPARTMENT OF PUBLIC WORKS, A SEPARATE SET OF PUBLIC ROAD CONSTRUCTION DRAWINGS HAS BEEN PREPARED COUNTY # 9-94-74. NO DIFFERENTIATION HAS BEEN MADE ON THIS SITE PLAN BETWEEN THE TWO PHASES EXCEPT A LIMIT OF WORK LINE THAT APPROXIMATELY FOLLOWS THE EASTERN RIGHT-OF-WAY LINE OF DOBBIN ROAD. SEE THE SEDIMENT AND EROSION CONTROL SHEETS WITHIN THIS SET OF DRAWINGS FOR A DETAILED LIST OF EXCLUSIONS AND ADDITIONS IN THE SCOPE OF WORK FOR BID ALTERNATE NO. 1 AS IT APPLIES TO THE SEDIMENT CONTROL. THIS AND OTHER SHEETS OF THIS SET HAVE BEEN INCLUDED IN PLAN 9-94-74 AS REFERENCE DRAWINGS. A SEQUENCE OF CONSTRUCTION IS INCLUDED WITHIN THAT SET FOR THE DOBBIN ROAD CONSTRUCTION.

50' WIDE TEMPORARY ROAD EASEMENT PLAT NO. 3389 PLAT TO BE SUPERCEDED BY PUBLIC DEDICATION OF 60' R/W SEE FDP PHASE 197A-II PART II.

NOTE:
FOR LIMIT OF WORK FOR SEDIMENT CONTROL MEASURES, SEE SEDIMENT & EROSION CONTROL PLANS, DWGS 17-28 OF 32

APPROVED PLANNING BOARD OF HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

James M. Boyd 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Joseph R. Roth 6/29/94
DIRECTOR DATE
Jim Strimmon 6/20/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James J. Lee 6/21/94
DIRECTOR DATE
Robert J. Sasser 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

Date	No.	Revision Description
5-20-93	1	REDLINE REVISION NO. 1 - CHANGED SHT. NO.

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLICOTT CITY, MARYLAND 21042-6198

DMW
Dan-Mac Construction, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3438
Fax 296-4706
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

SUBDIVISION	SECTION	AREA	LOT	OFFICER #
VILLAGE OF LONGREACH	SEC. 3	AREA 2		93 / 657
PARCEL NO. 11272-23	TAXING MAP	ELECT. DISTRICT	GEN. TRACT	6067.03
WATER CODE	E 06	SEWER CODE	3530000	

TITLE
SITE DEVELOPMENT PLAN
31 MARCH 94

Des By	MAT	Scale	1" = 40'	Proj. No.	92087A
Dm By	JUN	Date	1-12-94		
Chk By	LWW	Approved			4 OF 32 34



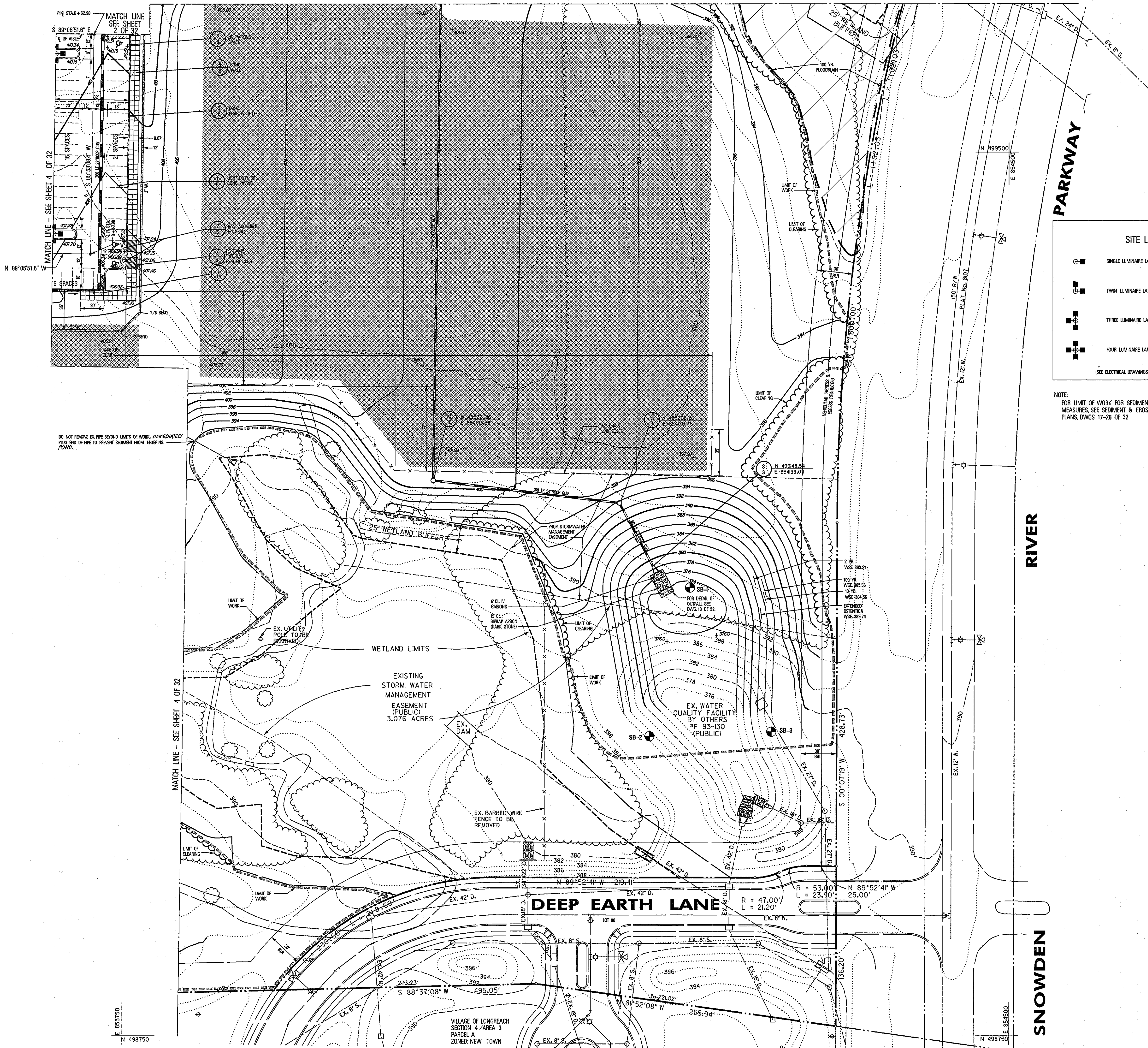
SEAL APPLIES TO REDLINE REVISION NO. 1

3/24/94
Date



16998
Professional Engr. No.

MATCH LINE - SEE SHEET 3 OF 32



PLAN LEGEND

- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- PROPOSED WATER
- PROPOSED HC RAMP AREAS AT WALKWAYS
- PROPOSED CONC. WALK AND SCORING PATTERN
- PROPOSED CONC. WALK AREAS SHOWN ON ARCHITECTURAL DWGS.
- PROPOSED BIT. CONC. PAVING OTHER THAN ROADWAYS
- PROPOSED REVERSE CONC. CURB AND GUTTER
- PROPOSED LAWN AREAS TO RECEIVE 6" LAYER OF TOPSOIL - ALL OTHER LAWN AREAS SHALL RECEIVE A 6" LAYER
- PROPOSED LIMIT OF VEGETATION TO REMAIN IN DISTURBED AREAS
- PROPOSED CHAIN LINK FENCE AND GATE SEE PLAN FOR SIZE AND REFERENCE
- PROPOSED PAVEMENT STRIPING FOR CROSSWALKS AND IC AISLES 4" WIDE WHITE PAINTED STRIPES - 12" OC
- LIMIT OF WORK

SITE LIGHTING LEGEND

- SINGLE LUMINAIRE LAMP ON 30' H. SQUARE POLE W/ CONC. BASE
- TWIN LUMINAIRE LAMP ON 30' H. SQUARE POLE W/ CONC. BASE
- THREE LUMINAIRE LAMP ON 30' H. SQUARE POLE W/ CONC. BASE
- FOUR LUMINAIRE LAMP ON 30' H. SQUARE POLE W/ CONC. BASE

(SEE ELECTRICAL DRAWINGS FOR FINAL LOCATION AND TYPE OF FIXTURES)

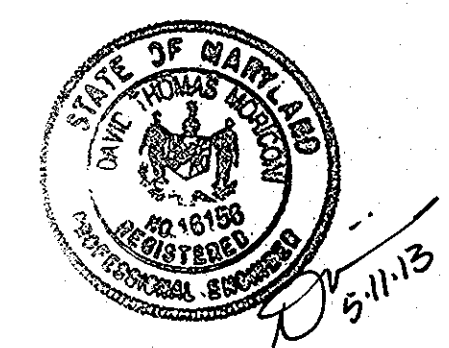
NOTE:
FOR LIMIT OF WORK FOR SEDIMENT CONTROL MEASURES, SEE SEDIMENT & EROSION CONTROL PLANS, DWGS 17-28 OF 32

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<i>Joyce M. ...</i>	6-23-94
COUNTY HEALTH OFFICER		DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>Joseph ...</i>	6/29/94
DIRECTOR		DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC WORKS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>Anna ...</i>	6/20/94
CHIEF, LAND DEVELOPMENT & RESEARCH		DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC WORKS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>James ...</i>	6/21/94
DIRECTOR		DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC WORKS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>Charles ...</i>	6/20/94
CHIEF, BUREAU OF ENGINEERING		DATE

5-2013	1	REDLINE REVISION NO. 1 - CHANGED SH. 10.
Date	No.	Revision Description

EASTERN HIGH SCHOOL
OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLICOTT CITY, MARYLAND 21042-6198



SEAL APPLIES TO REDLINE REVISION NO. 1

3/24/94
Date

DMW
Professional Engr. No. 16998

DMW
DRAFTING & CONSTRUCTION, INC.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3533
Fax: 296-4706

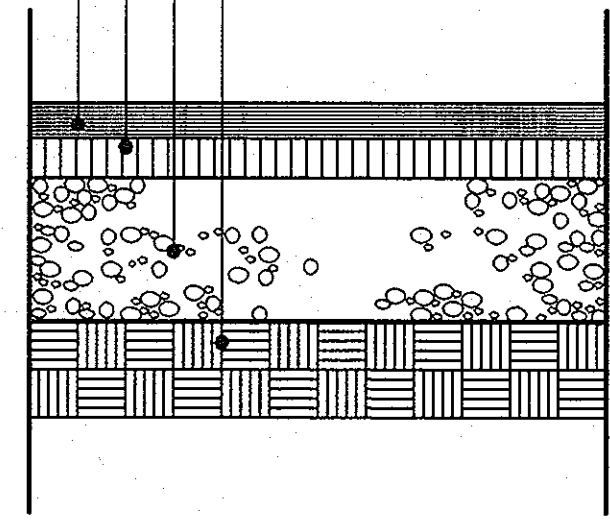
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

SUBDIVISION	VILLAGE OF LONGREACH	SECTION/AREA	SEC. 3 AREA 2	LOT/PARCEL #	93.657
PLAT # OF L.P.	112-20-73	TAXING MAP	36	GEN. DISTRICT	6TH
WATER CODE	E 06	SEWER CODE	3530000	GEN. TRACT	6067.03

TITLE: **SITE DEVELOPMENT PLAN**

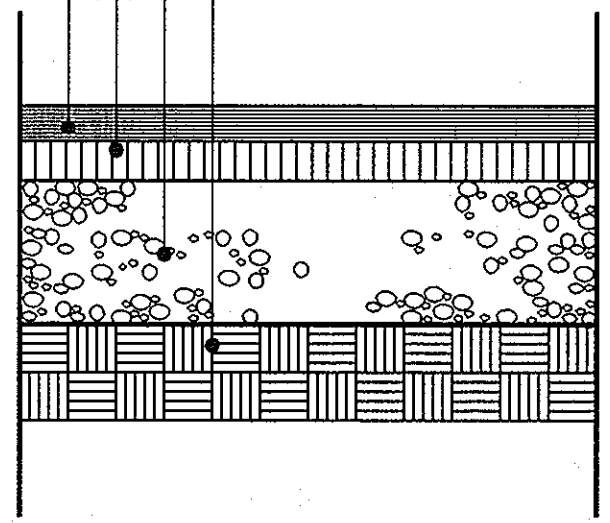
Des By	MAT/CEV	Scale	1" = 40'	Proj. No.	92087A
Dwn By	MAT/DMA	Date	1-12-94		
Chk By	LWW	Approved			5 OF 22 34

1.5" BIT. CONC. SURFACE COURSE (SF)
4" BIT. CONC. LEVELING COURSE (BF)
6" CRUSHER RUN BASE COURSE (GA S/B)
COMPACTED SUBGRADE

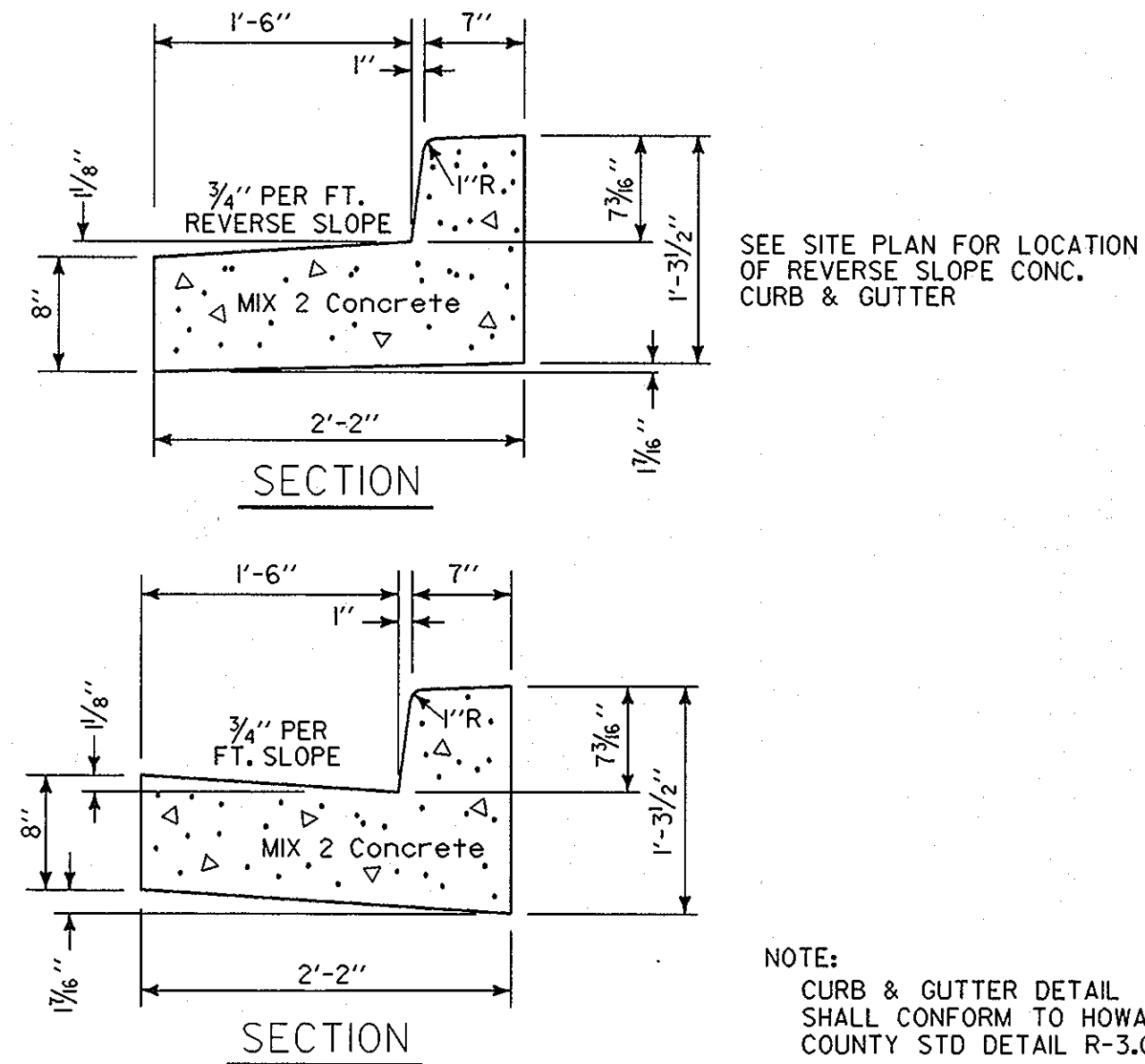


NOTE: EXCEEDS RECOMMENDED SECTIONS AS PER SOILS REPORT.

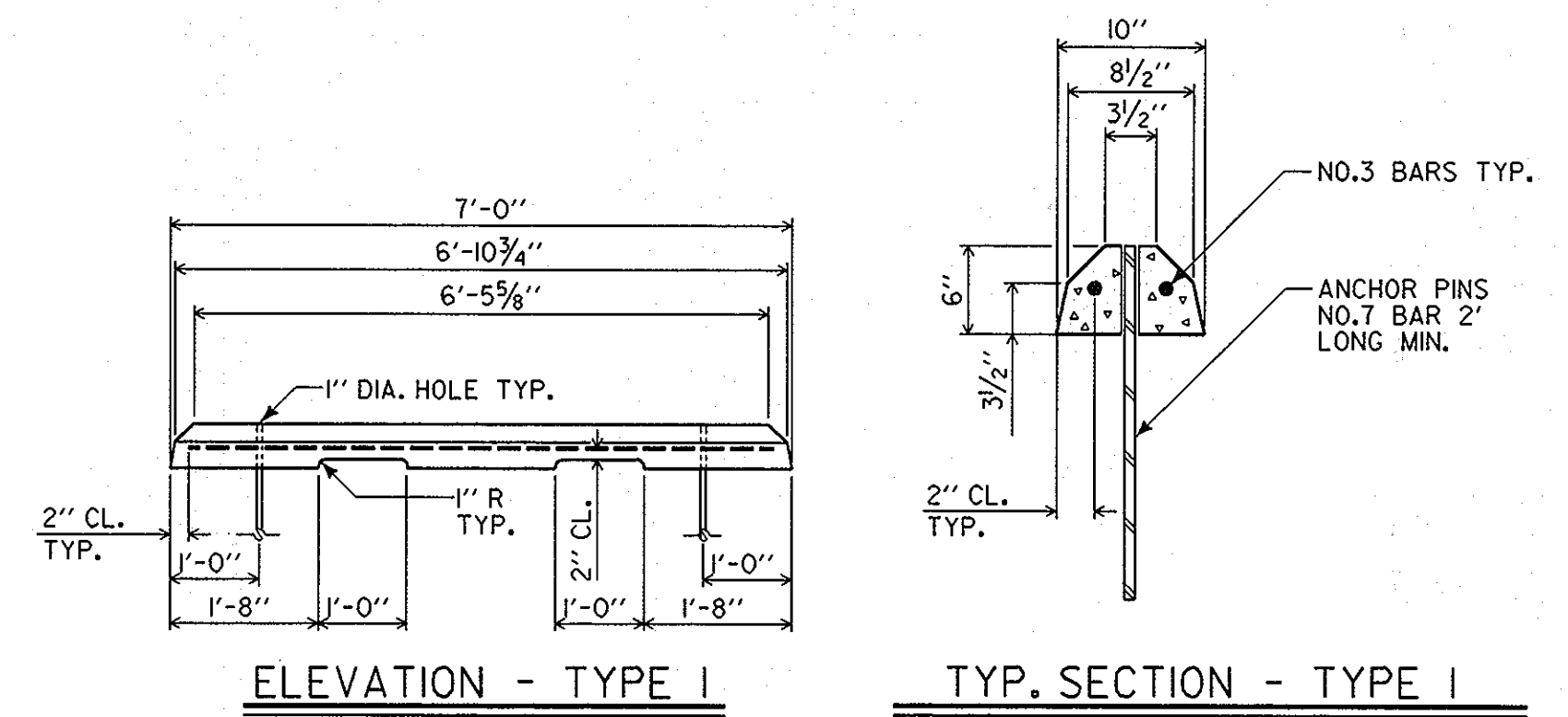
1.5" BIT. CONC. SURFACE COURSE (SF)
4" BIT. CONC. LEVELING COURSE (BF)
6" CRUSHER RUN BASE COURSE (GA S/B)
COMPACTED SUBGRADE



NOTE: EXCEEDS RECOMMENDED SECTIONS AS PER SOILS REPORT.



NOTE: CURB & GUTTER DETAIL SHALL CONFORM TO HOWARD COUNTY STD DETAIL R-3.01



1 LIGHT DUTY PAVING

SCALE : 1"=1'-0"

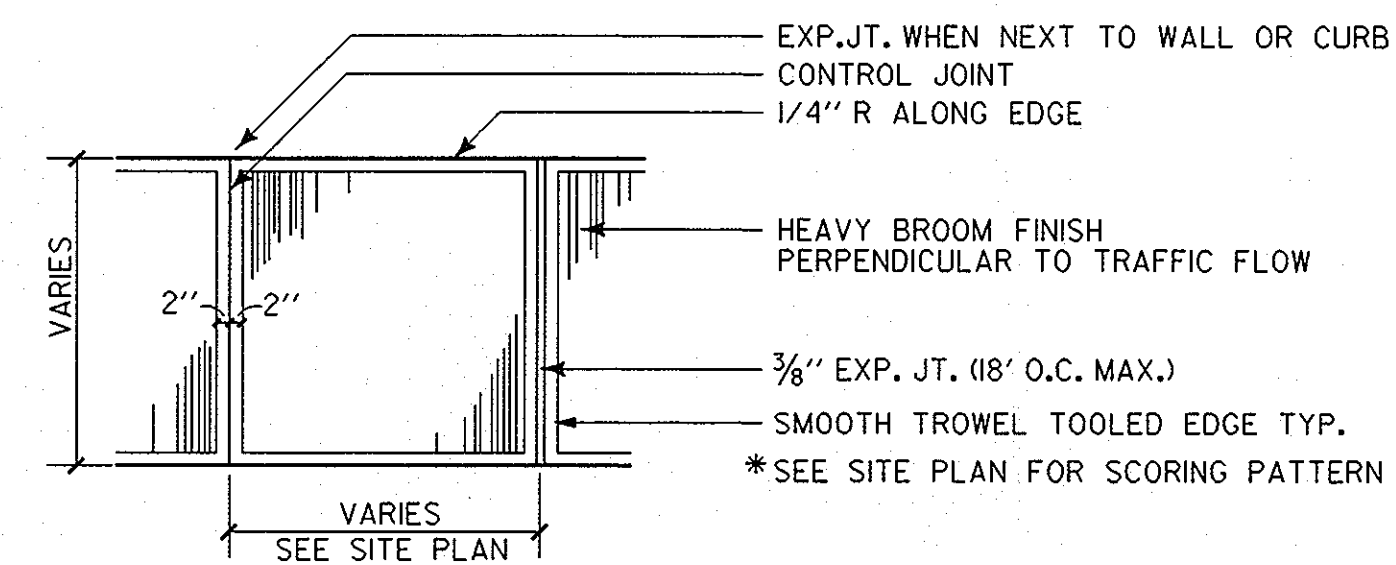
2 HEAVY DUTY PAVING

SCALE : 1"=1'-0"

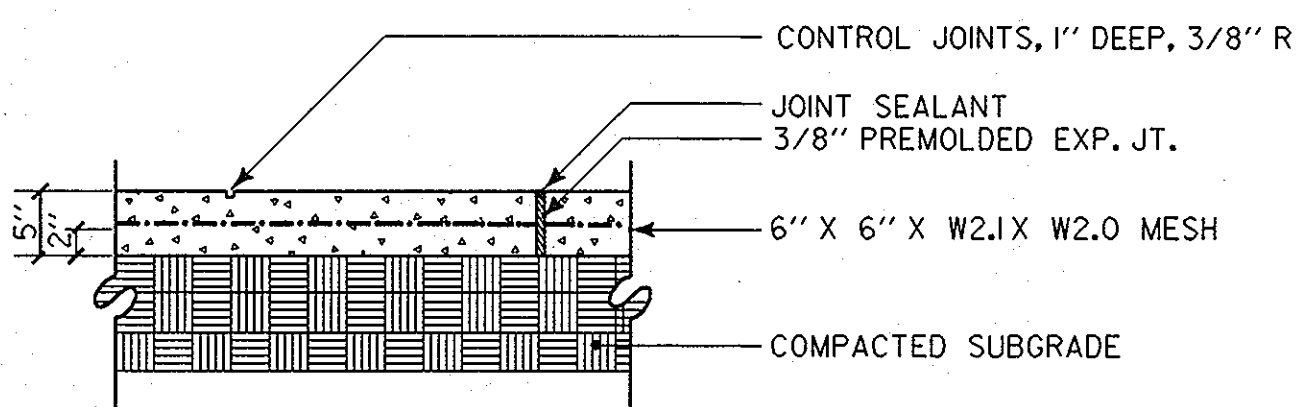
3 7" COMBINATION CURB AND GUTTER SCALE : 1"=1'-0"

4 PRECAST CONCRETE WHEELSTOP

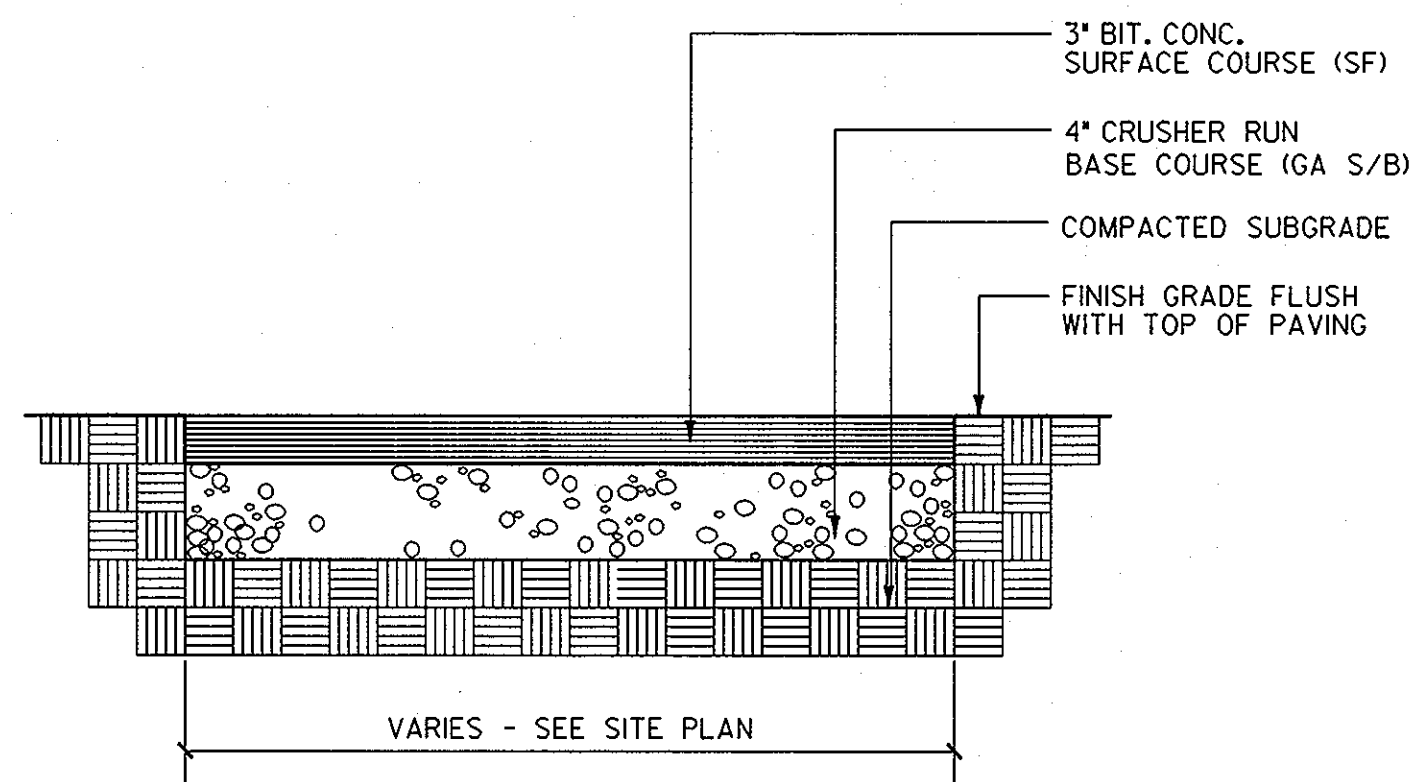
SCALE : 1/2"=1'-0"



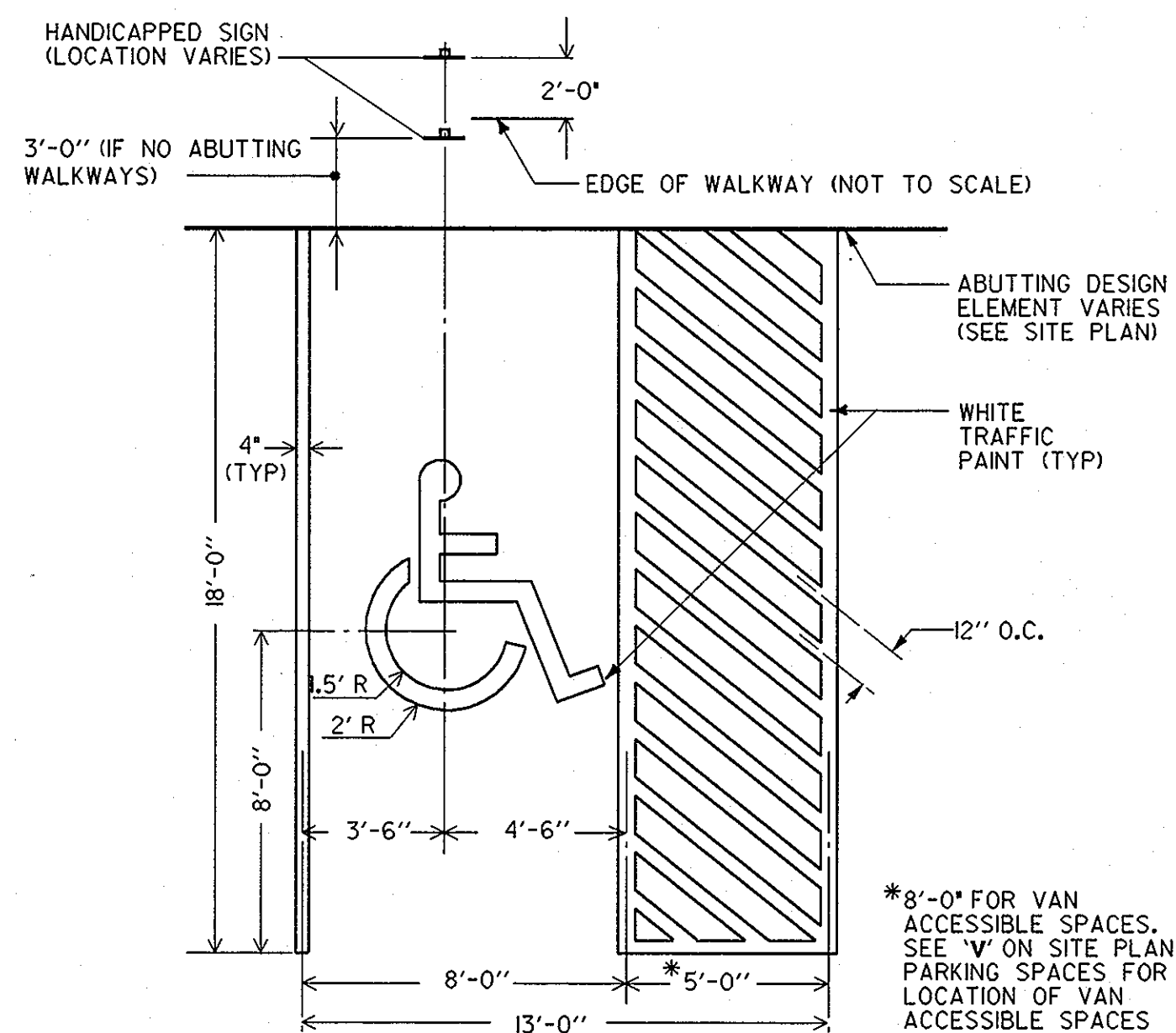
PLAN



SECTION



SECTION



5 CONCRETE WALK

SCALE : 3/8"=1'-0"

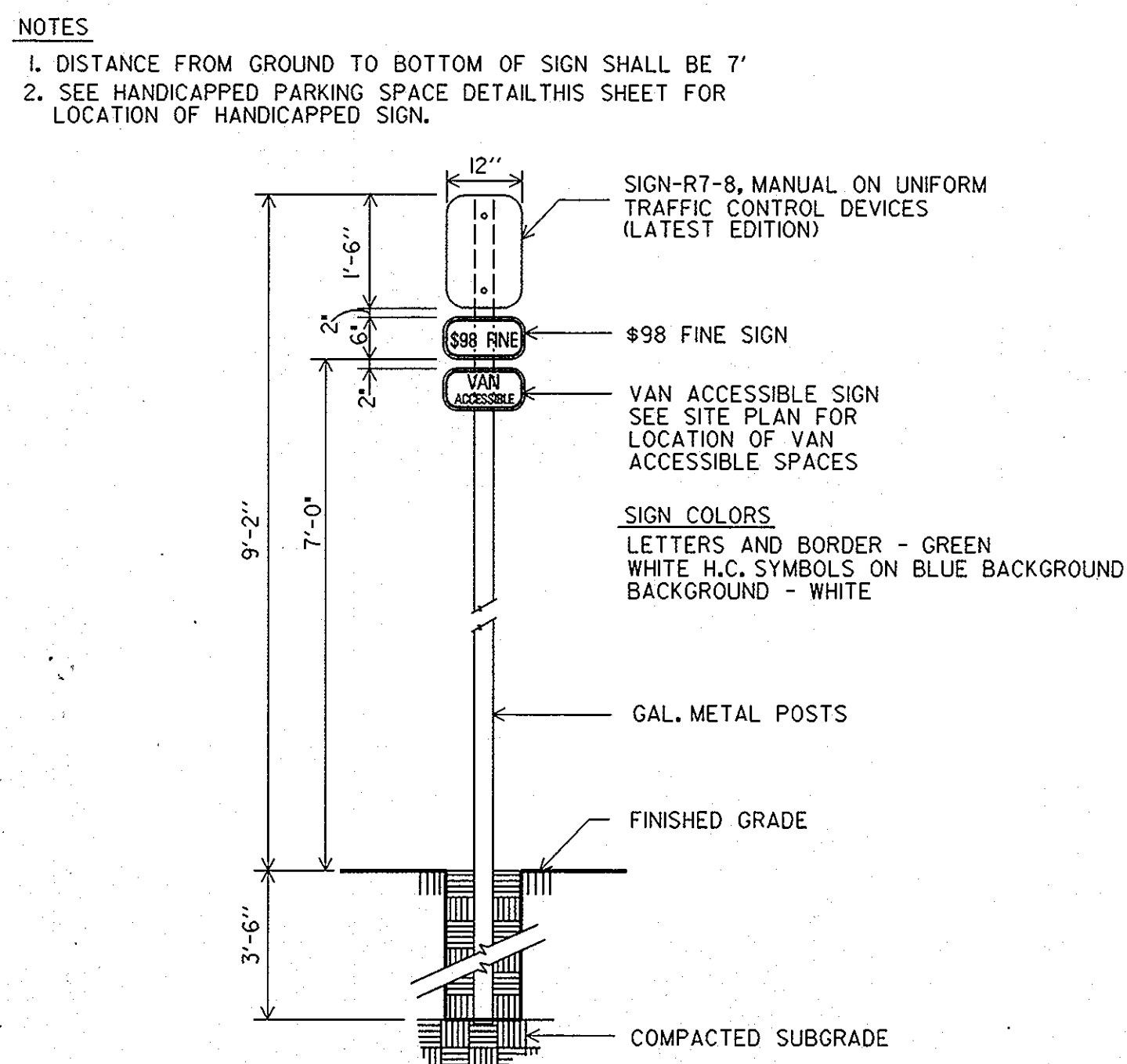
6 BIT. CONC. WALK

SCALE : 1"=1'-0"

7 HANDICAPPED PARKING SPACE

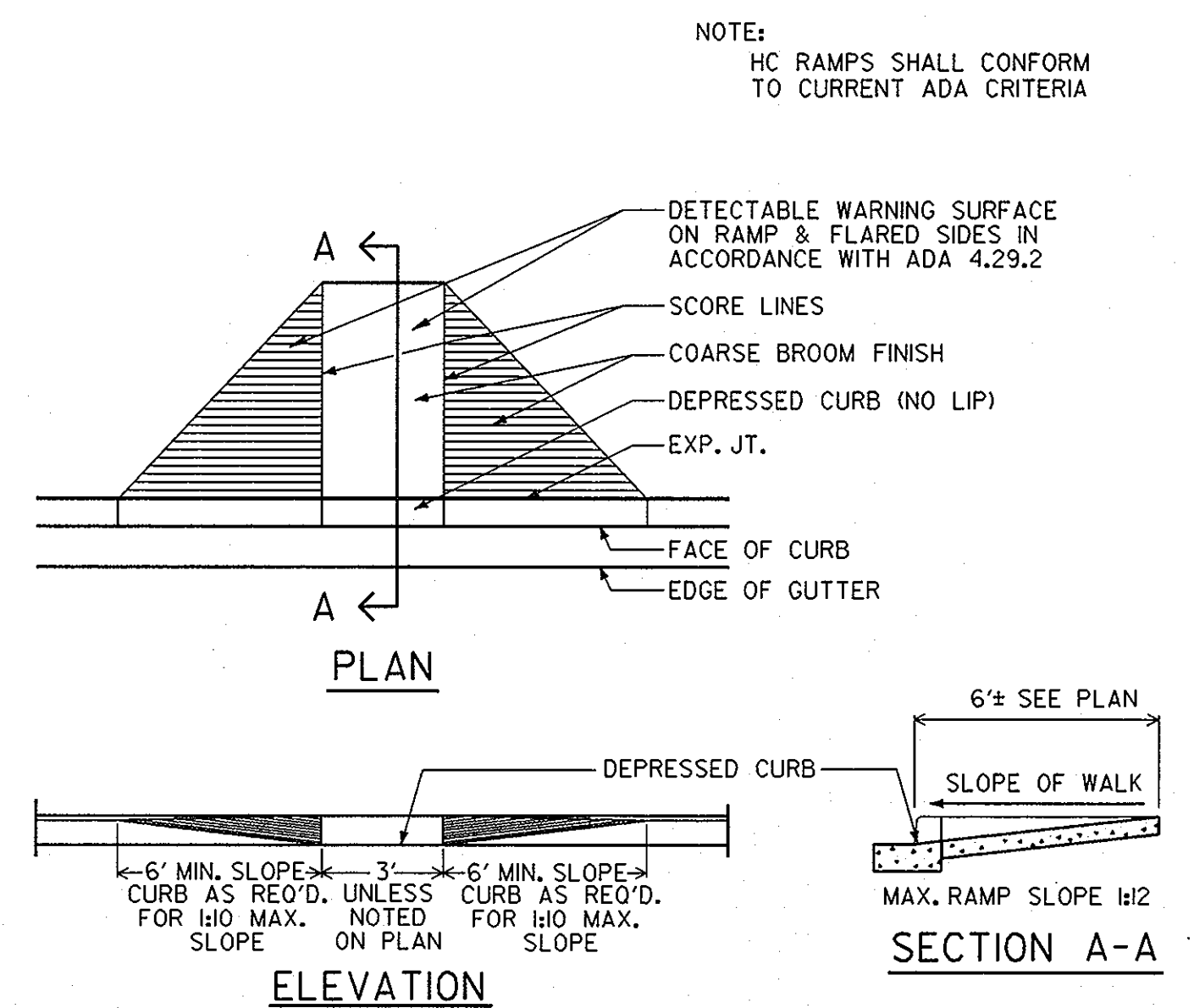
SCALE : 1/4"=1'-0"

8 DUMPSTER PAD NOT TO SCALE



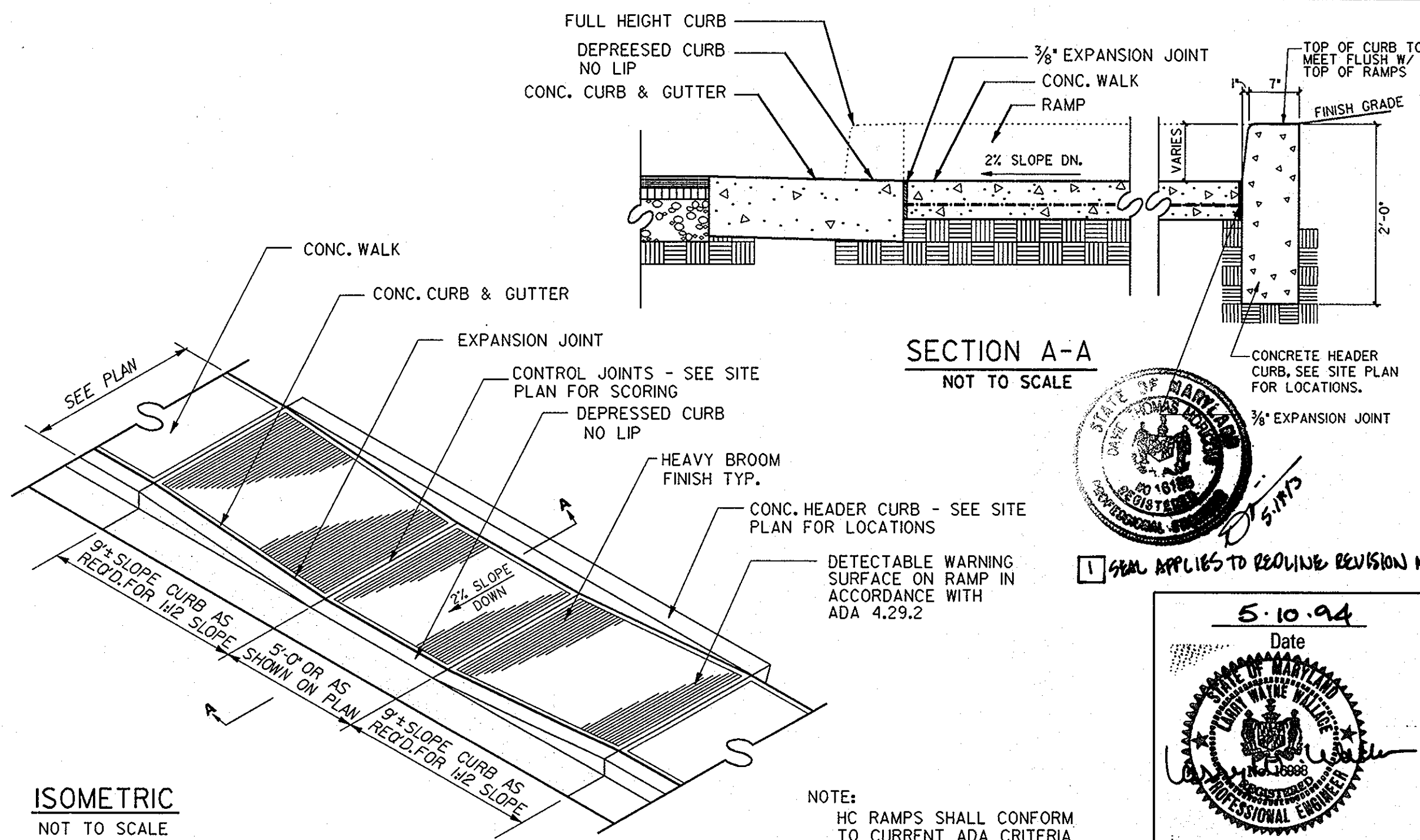
9 HANDICAPPED SIGN

NOT TO SCALE



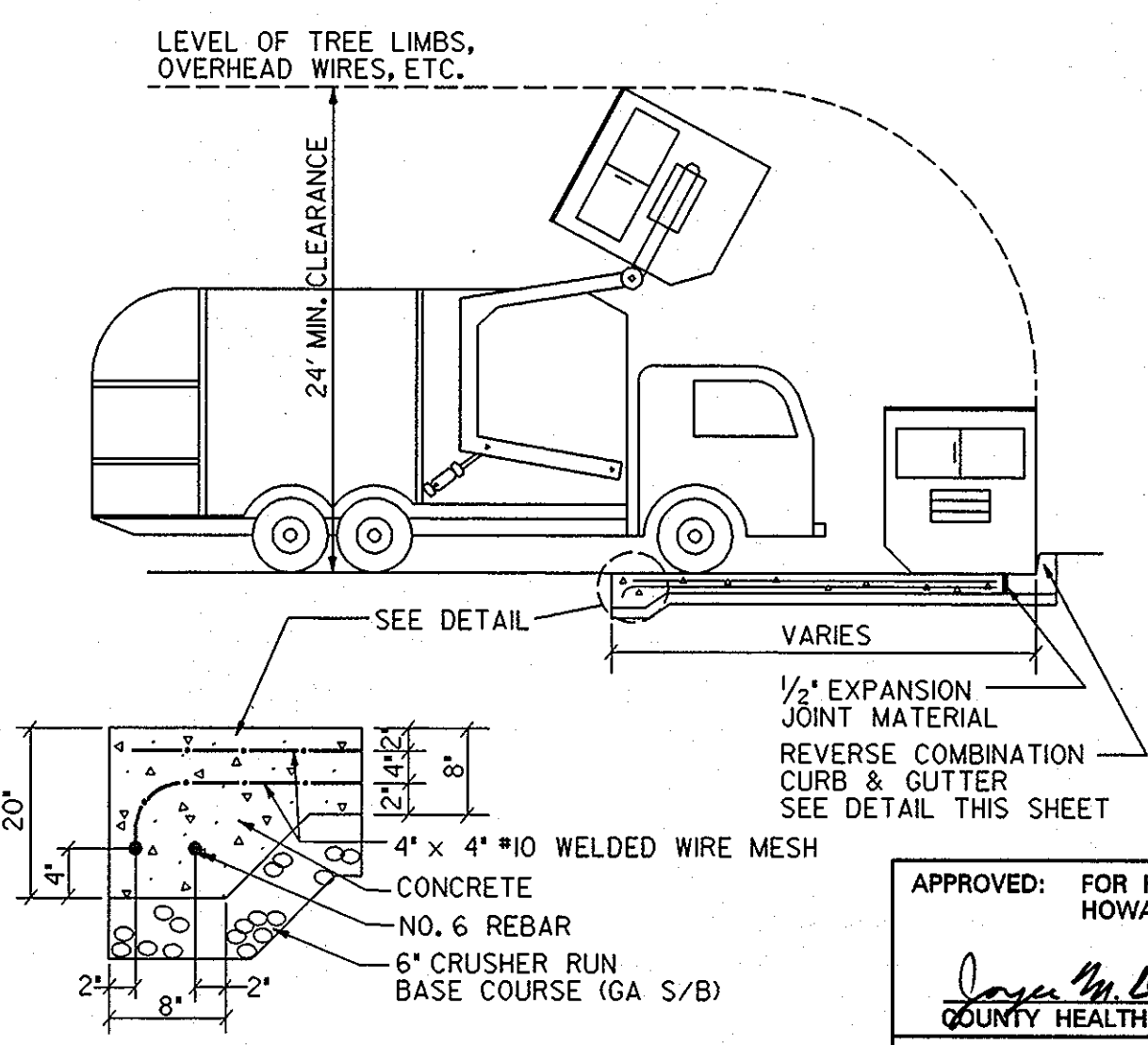
10 HANDICAPPED RAMP TYPE I

NOT TO SCALE



11 HANDICAPPED RAMP TYPE II

NOT TO SCALE



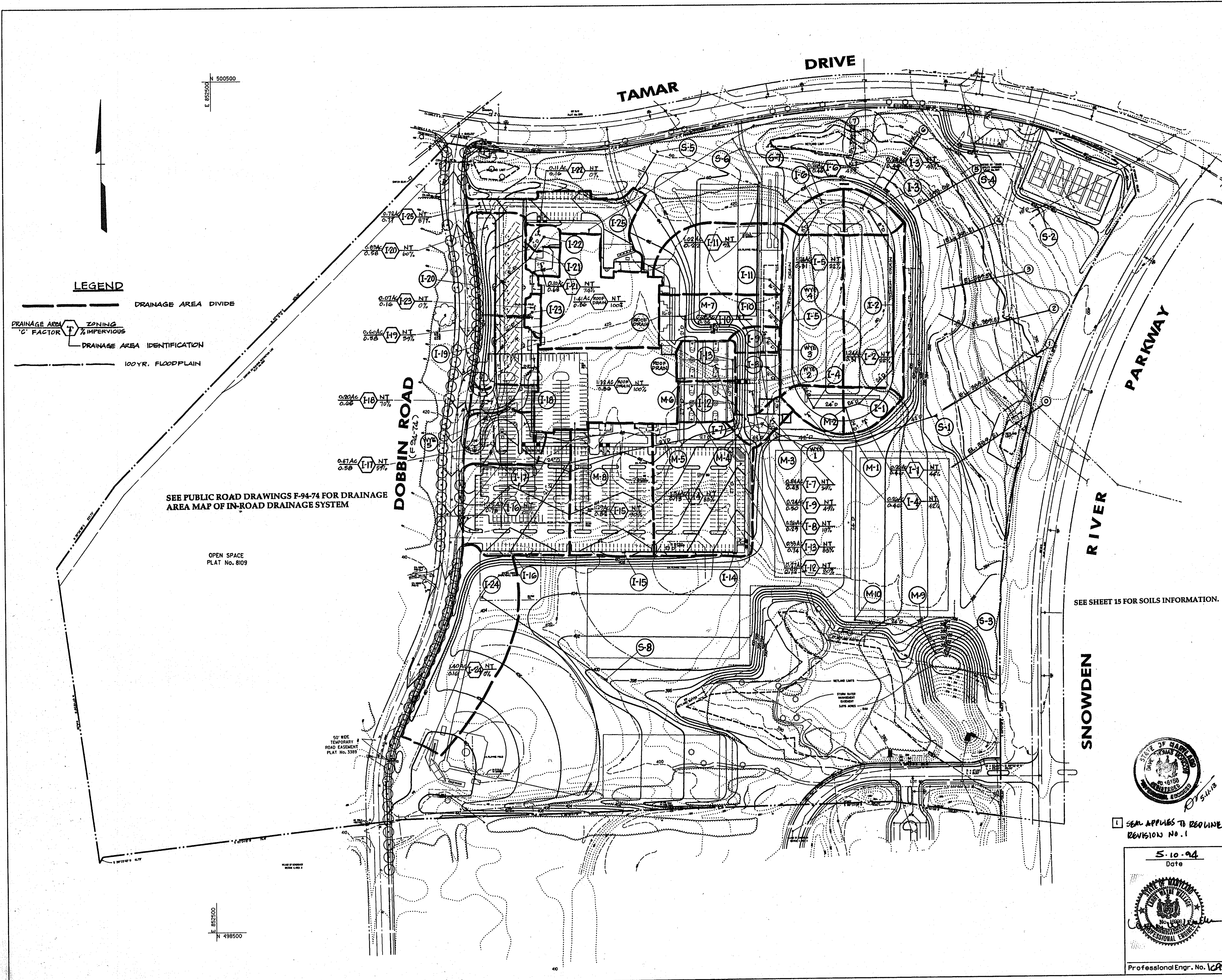
APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 17 April '94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	DATE
<i>Joseph M. ...</i>	6-23-94
COUNTY HEALTH OFFICER	
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	DATE
<i>James ...</i>	6/29/94
DIRECTOR	
<i>Anna ...</i>	6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH	
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	DATE
<i>James ...</i>	6/1/94
DIRECTOR	
<i>Robert ...</i>	6/20/94
CHIEF, BUREAU OF ENGINEERING	
5-1013	REVISION REVISION NO. 1 - CHANGED SHEET NO.
Date	Revision Description

EASTERN HIGH SCHOOL
OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLICOTT CITY, MARYLAND 21042-6198

DMW			
Duff McCune-Walker, Inc.			
200 East Pennsylvania Avenue			
Towson, Maryland 21286			
(410) 296-3339			
Fax 296-4705			
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals			
SUBDIVISION	SECTION	LOT/PARCEL #	
VILLAGE OF LONGREACH	SEC. 3 AREA 2	93 / 657	
PLAT # OR L.P.	BLOCK # ZONE	TAXMAP	SELECT. DISTRICT
1127a-7a	Z-1M	1	5TH
WATER CODE	E 06	SEWER CODE	9330000

SITE CONSTRUCTION DETAILS			
Des By	MAT	Scale	AS SHOWN
Dm By	DMA	Date	1-12-94
Chk By	LWW	Approved	
Professional Engr. No. 16998			6 OF 32



LEGEND

- DRAINAGE AREA DIVIDE
- DRAINAGE AREA ZONING
C FACTOR % IMPERVIOUS
- DRAINAGE AREA IDENTIFICATION
- 100YR. FLOODPLAIN

SEE PUBLIC ROAD DRAWINGS F-94-74 FOR DRAINAGE AREA MAP OF IN-ROAD DRAINAGE SYSTEM

OPEN SPACE PLAT No. 8109

50' WIDE TEMPORARY ROAD EASEMENT PLAT No. 3389

N 500500
E 885500

E 885500
N 498500

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

John M. ... 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James ... 6/29/94
DIRECTOR DATE
Uma ... 6/29/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James ... 6/21/94
DIRECTOR DATE
Robert ... 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

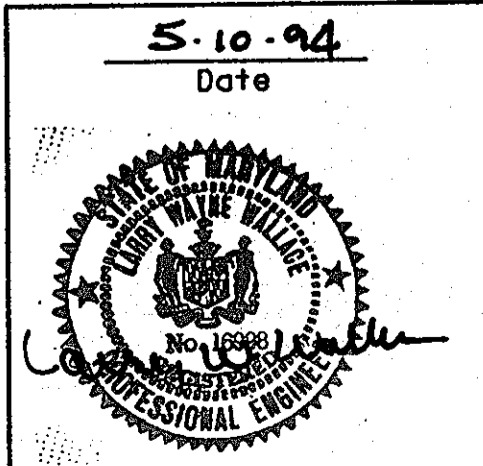
5-2013	<input checked="" type="checkbox"/>	REWORK REVISION NO. 1 - CHANGED SHEET NO.
Date	No.	Revision Description

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042-6198



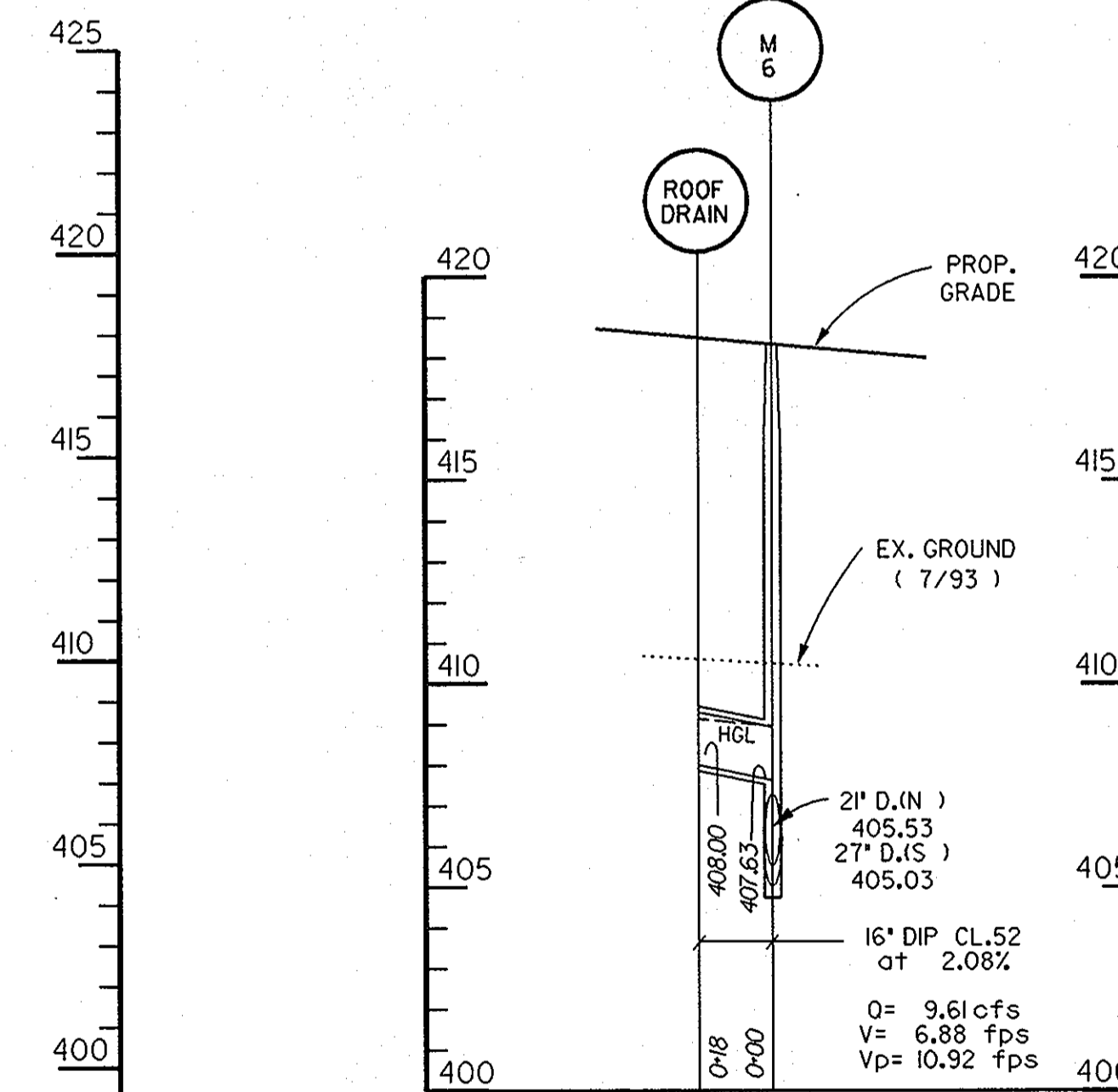
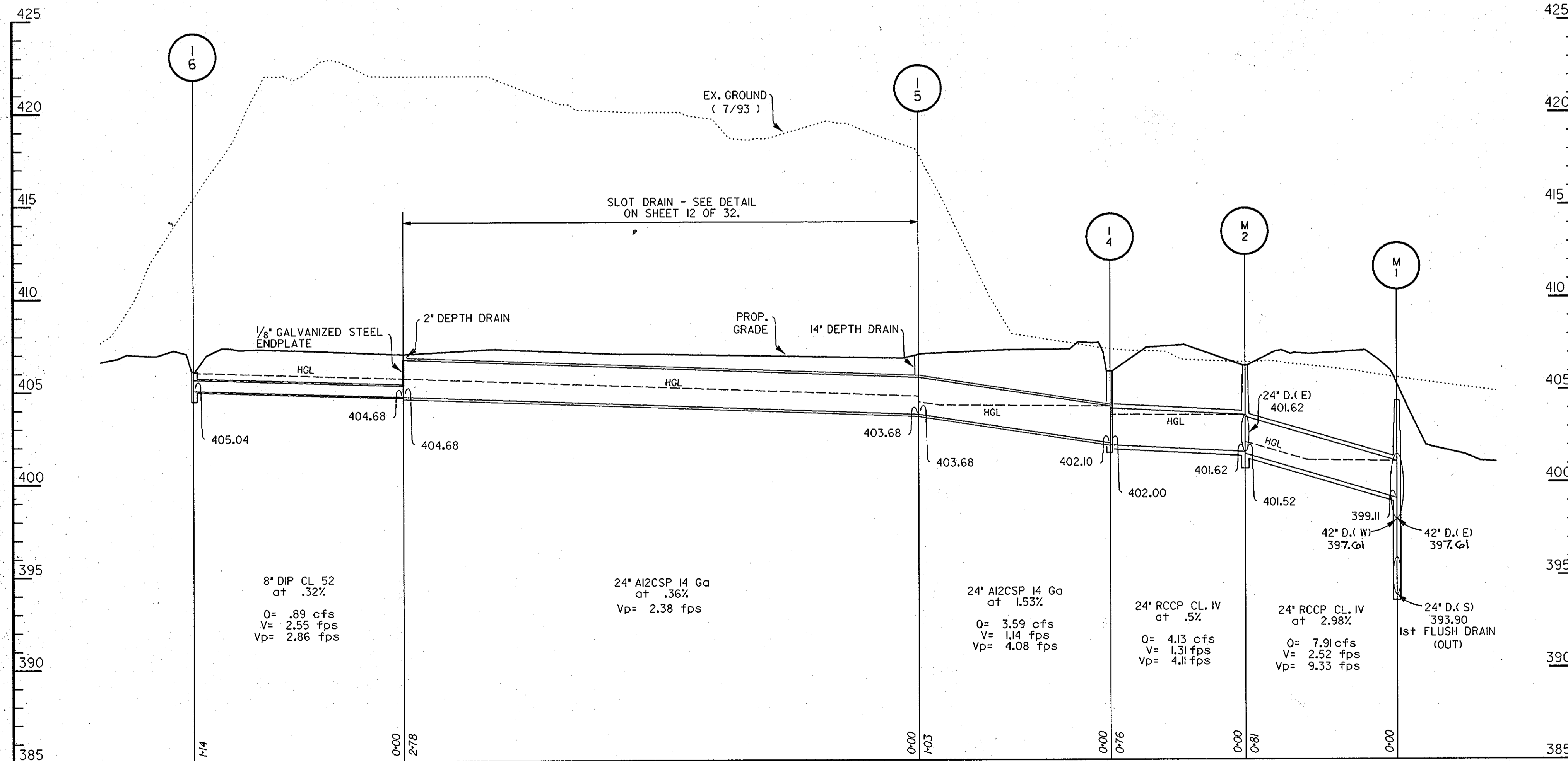
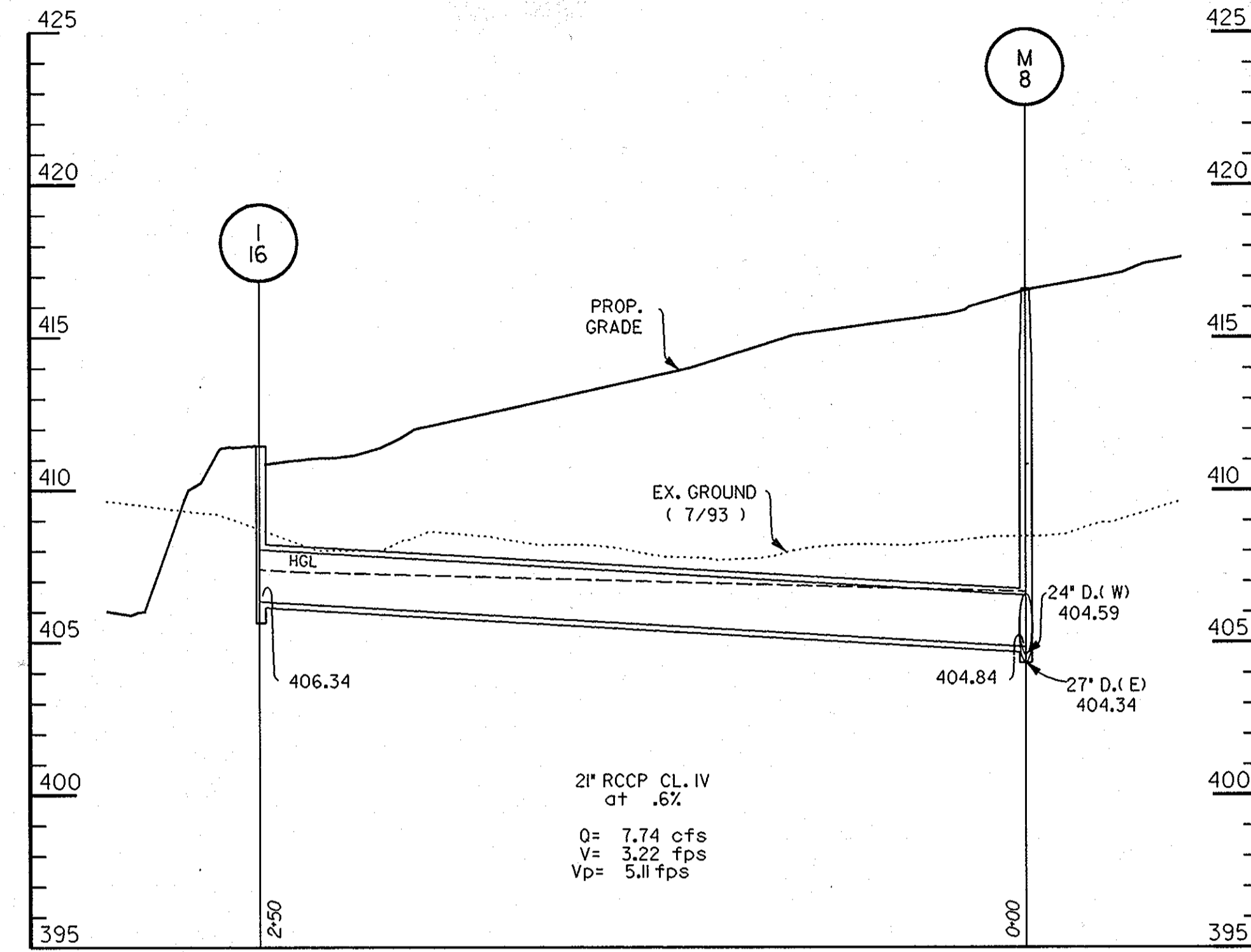
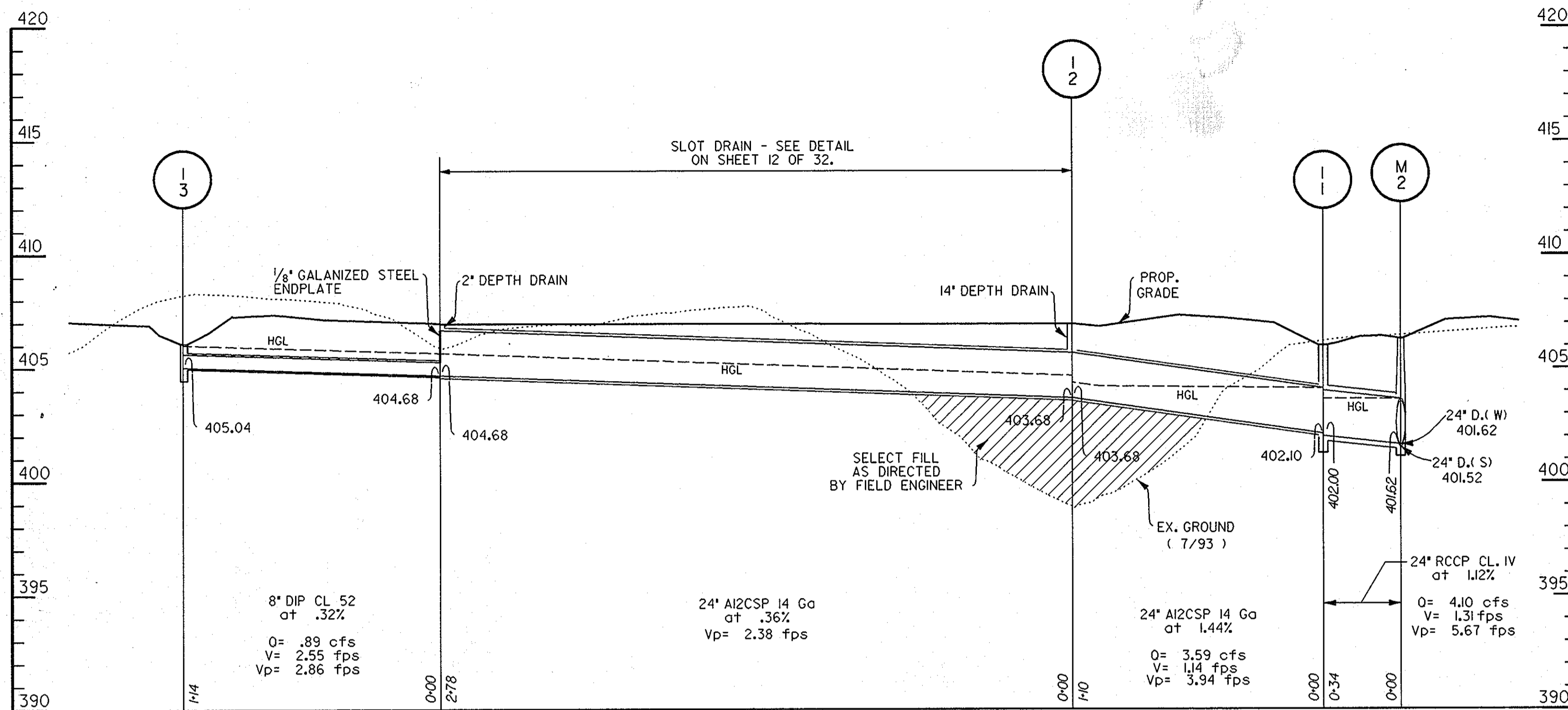
SEAL APPLIES TO REWORK REVISION NO. 1



DMW
Dean DeCaro-Casano-Williams, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3358
Fax 296-4705

SUBDIVISION NAME LONGREACH	SECTION/AREA SEC. 3 / AREA 2	LOT/PARCEL # 937 657
PLAT OR MAP BLOCK # 1122-2317	TAX/ZONE MAP # 6TH	CONSERVATION TRACT 6067.03
WATER CODE E06	SEWER CODE 3530000	SITE/TRACT BID 31 MAR 94
TITLE STORM DRAIN DRAINAGE AREA MAP		
Des By JMG	Scale 1" = 100'	Proj. No. 92087A
Dim By DBS	Date 1-12-94	<input checked="" type="checkbox"/>
Chk By EIS	Approved	7 OF 32 30

Professional Engr. No. 16998



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

Joseph M. Boyd 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James S. Austin 6/29/94
DIRECTOR DATE
Orin Summanna 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC WORKS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James J. Flynn 6/1/94
DIRECTOR DATE
Richard S. Mason 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

5-2-93 REVISION NO. 1 - CHANGED SHEET NO.
Date No. Revision Description

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLICOTT CITY, MARYLAND 21042-6198

DMW
Duff-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
Pax 286-4702
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

5-10-94
Date
Joseph M. Boyd
Professional Engineer

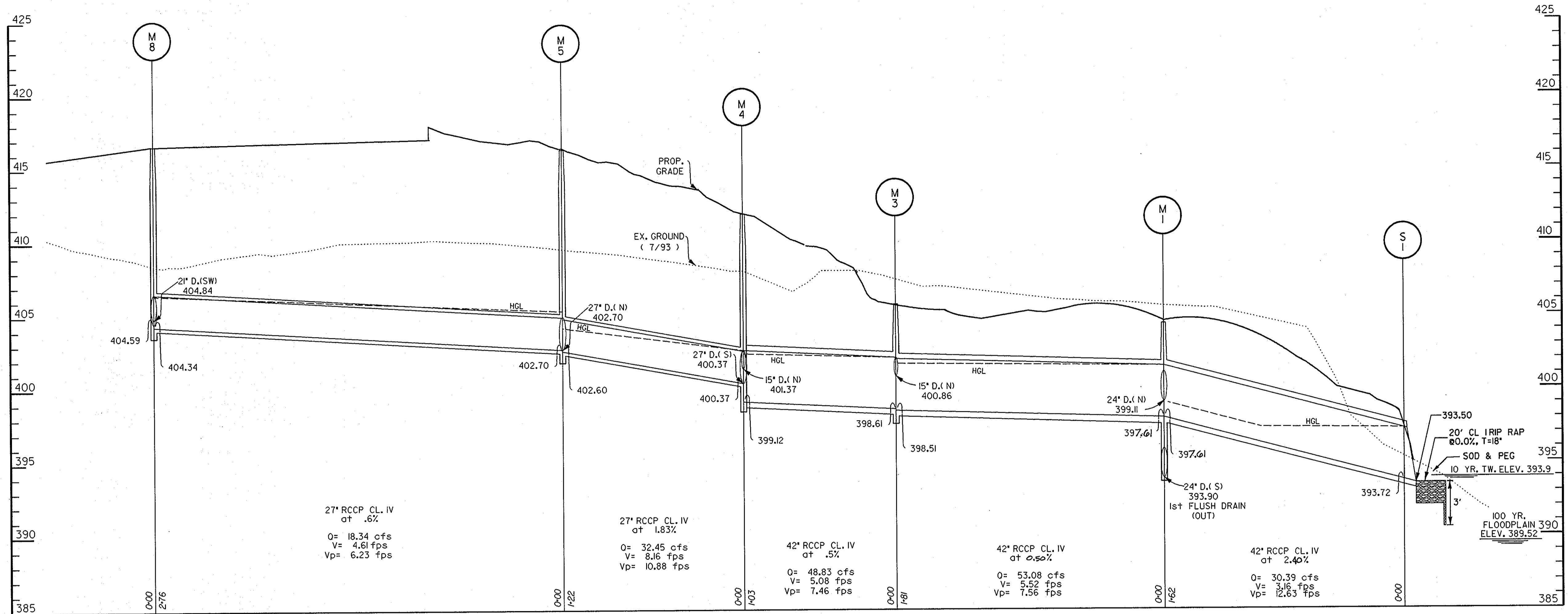


SEAL APPLIES TO REVISION
REVISION NO. 1
SCALE: HORIZ. = 1" = 40'
VERT. = 1" = 4'

SUBDIVISION	VILLAGE OF LONGREACH	SECTION	SEC. 3 AREA 2	LOT/PARCEL #	93 / 857
PLAT OR L.P.	11270-73	BLOCK #	7	TAXING MAP	6067.03
WATER CODE	E 06	SEWER CODE	3530000		

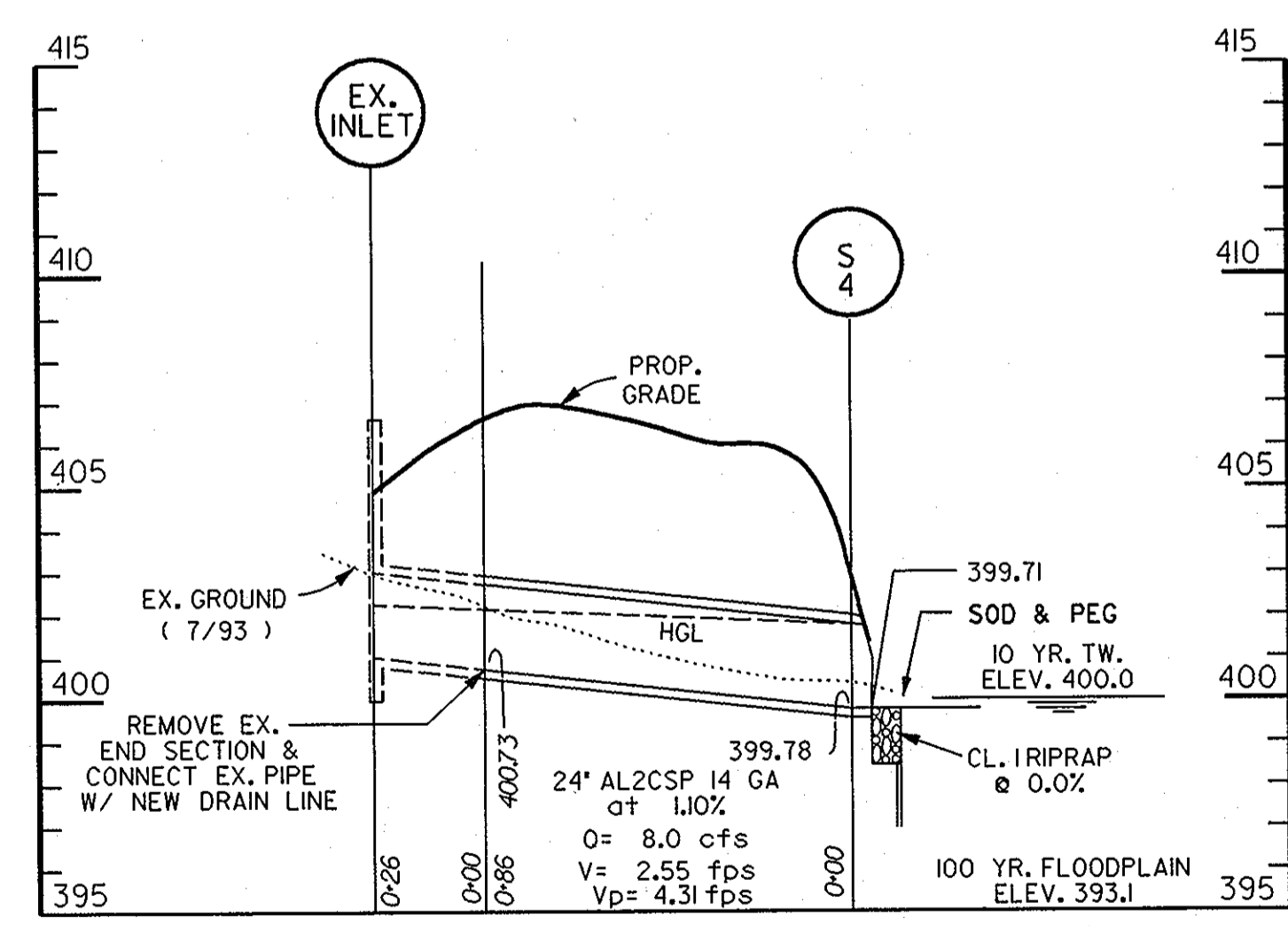
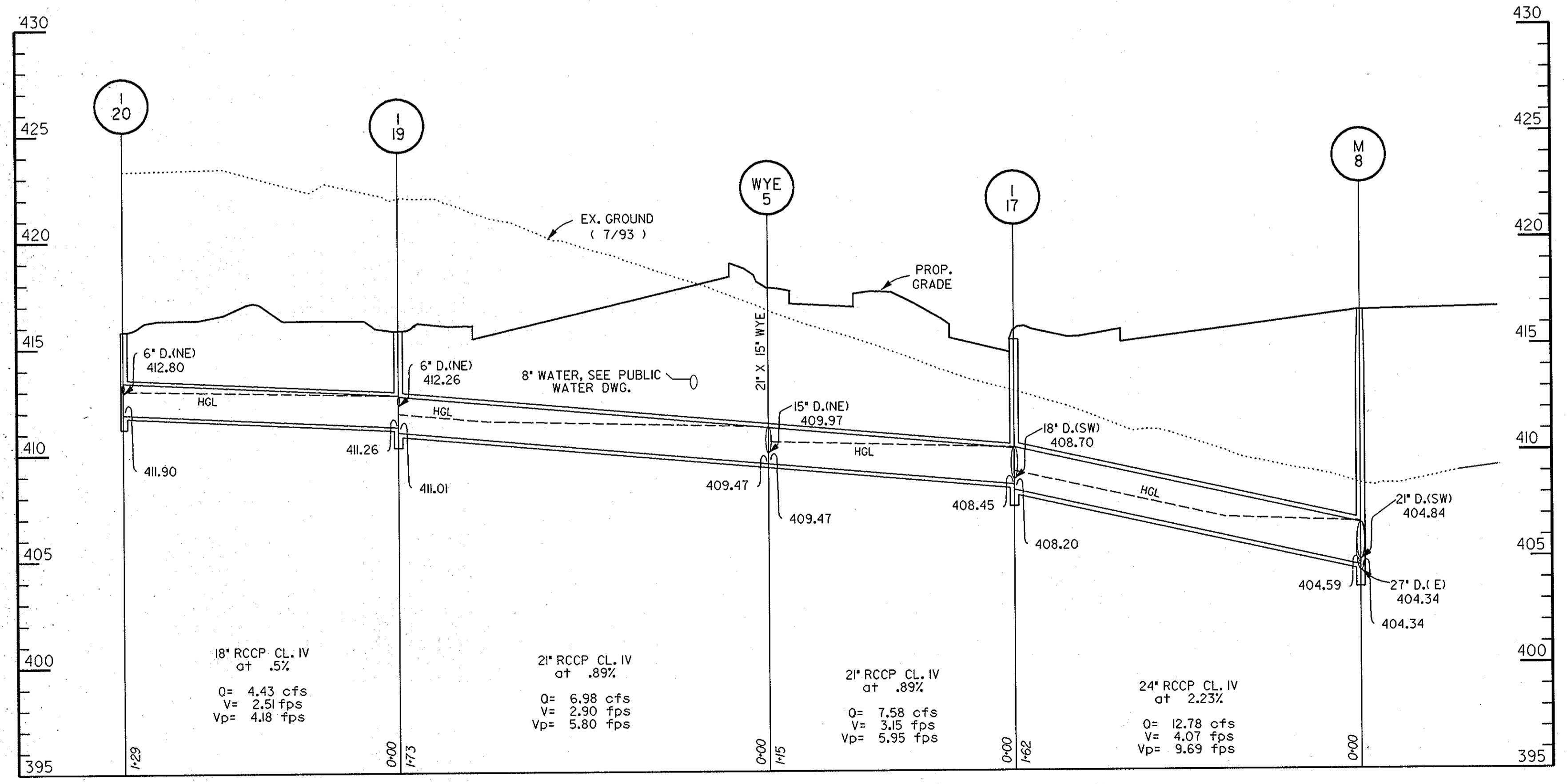
TITLE
STORM DRAIN PROFILES

Des By	CEV	Scale	AS SHOWN	Proj. No.	92087A
Dm By	CEV	Date	1-12-94		
Chk By	LWW	Approved			8 OF 32 34



SEAL APPLIES TO REVISION NO. 1

APPROVED
PLANNING BOARD
of HOWARD COUNTY
 DATE 14 April 94



SCALE: HORIZ. = 1" = 40'
 VERT. = 1" = 4'

5-10-94
 Date

Professional Engr. No. 16998

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
 HOWARD COUNTY HEALTH DEPARTMENT

Joseph M. Boyd 6-23-94
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James R. Butler 6/29/94
 DIRECTOR DATE

Uma Srivastava 6/28/94
 CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James P. Lewis 6/21/94
 DIRECTOR DATE

Paul W. L. Latham 6/20/94
 CHIEF, BUREAU OF ENGINEERING DATE

5-2013	T	REVISION NO. 1 - CHANGED STREET NO.
Date	No.	Revision Description

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RT.108
 ELLICOTT CITY, MARYLAND 21042-6198

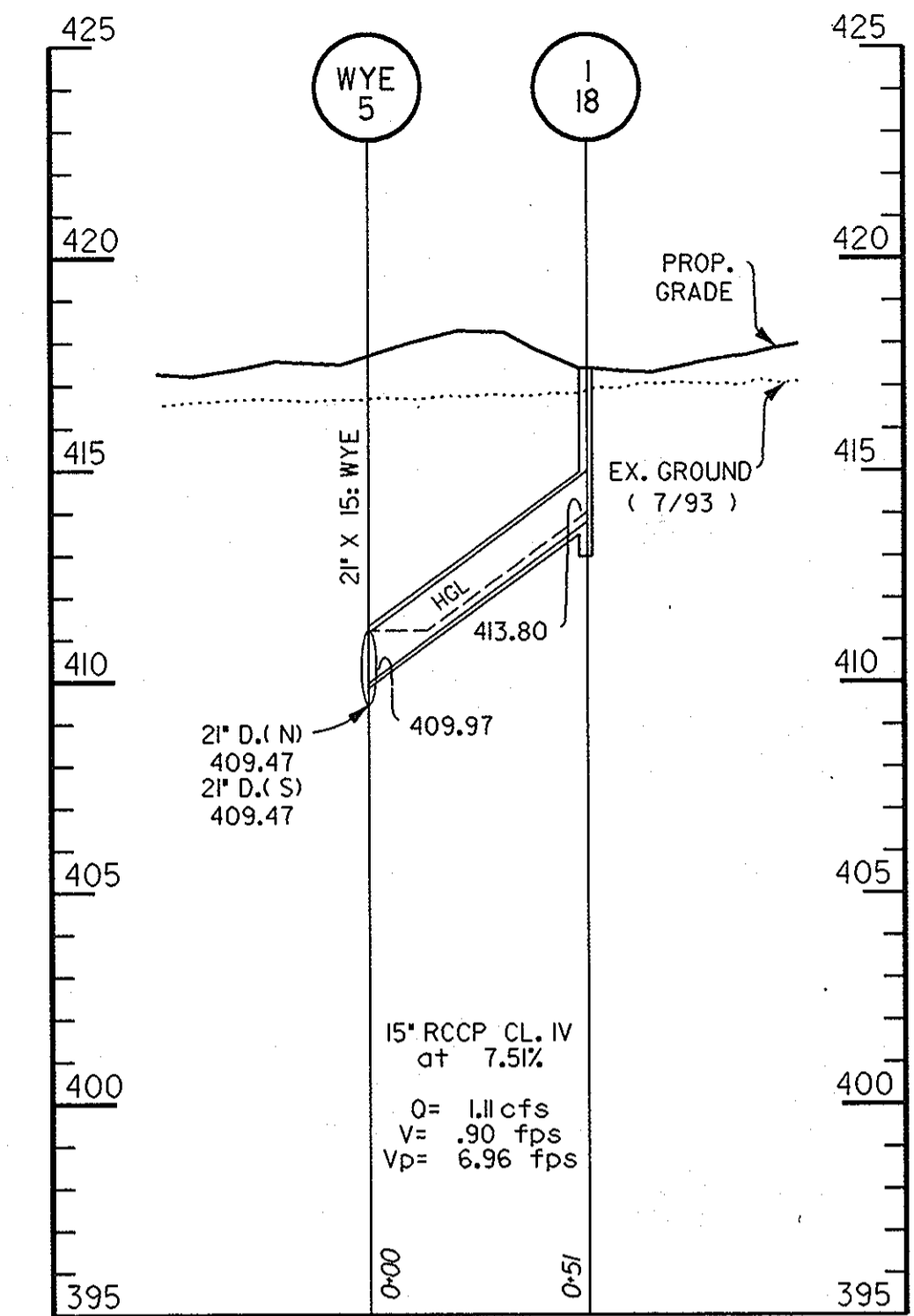
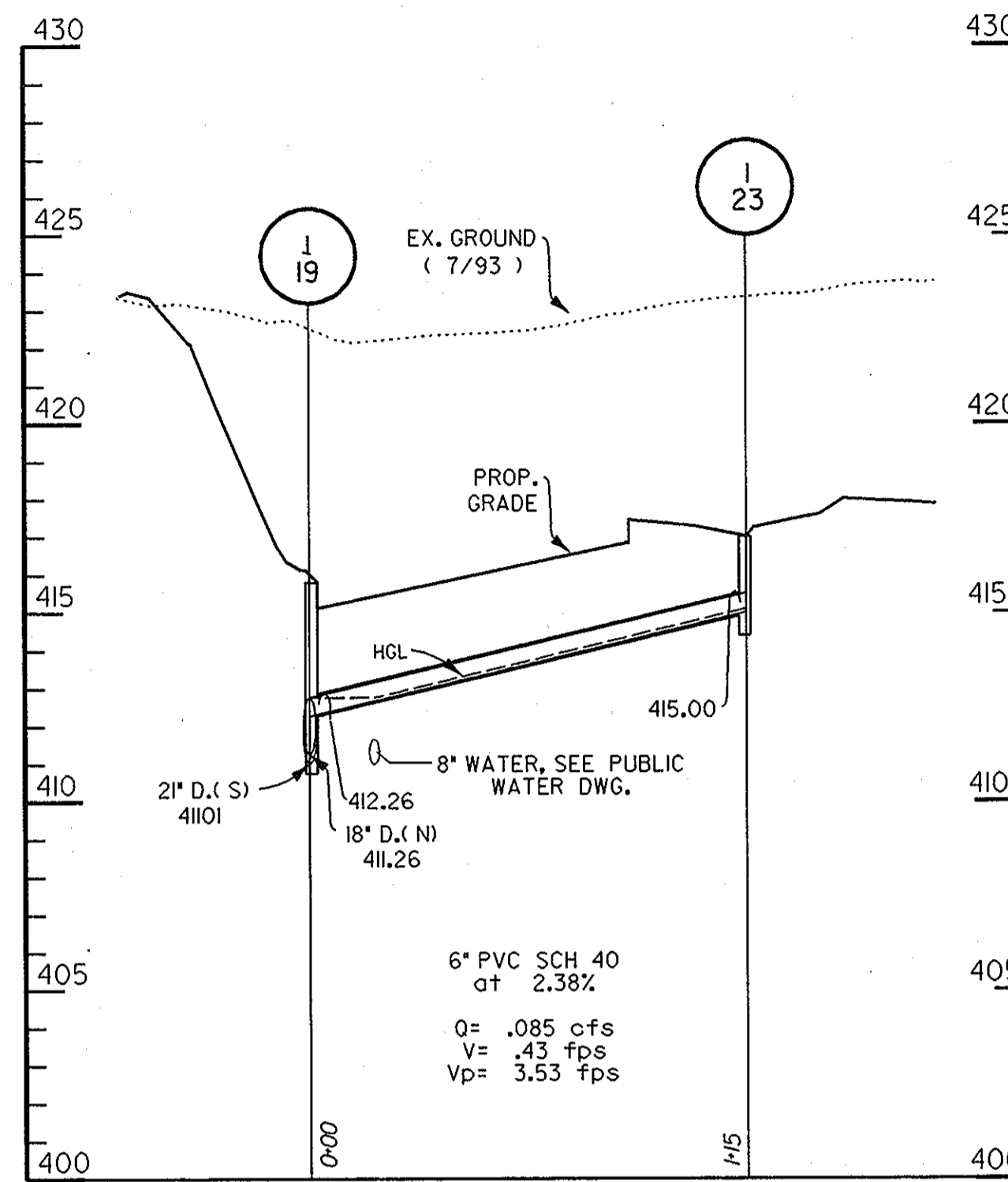
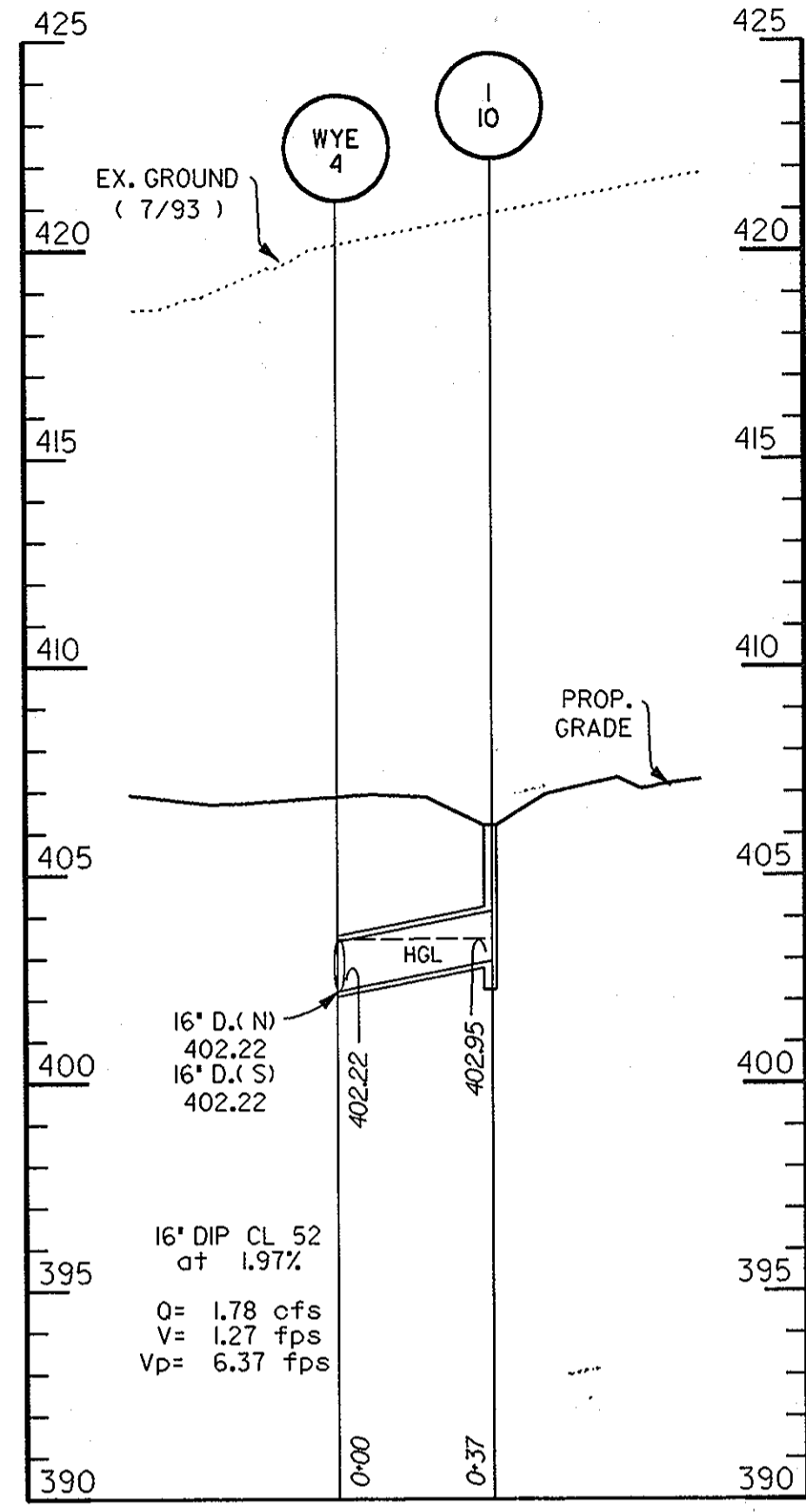
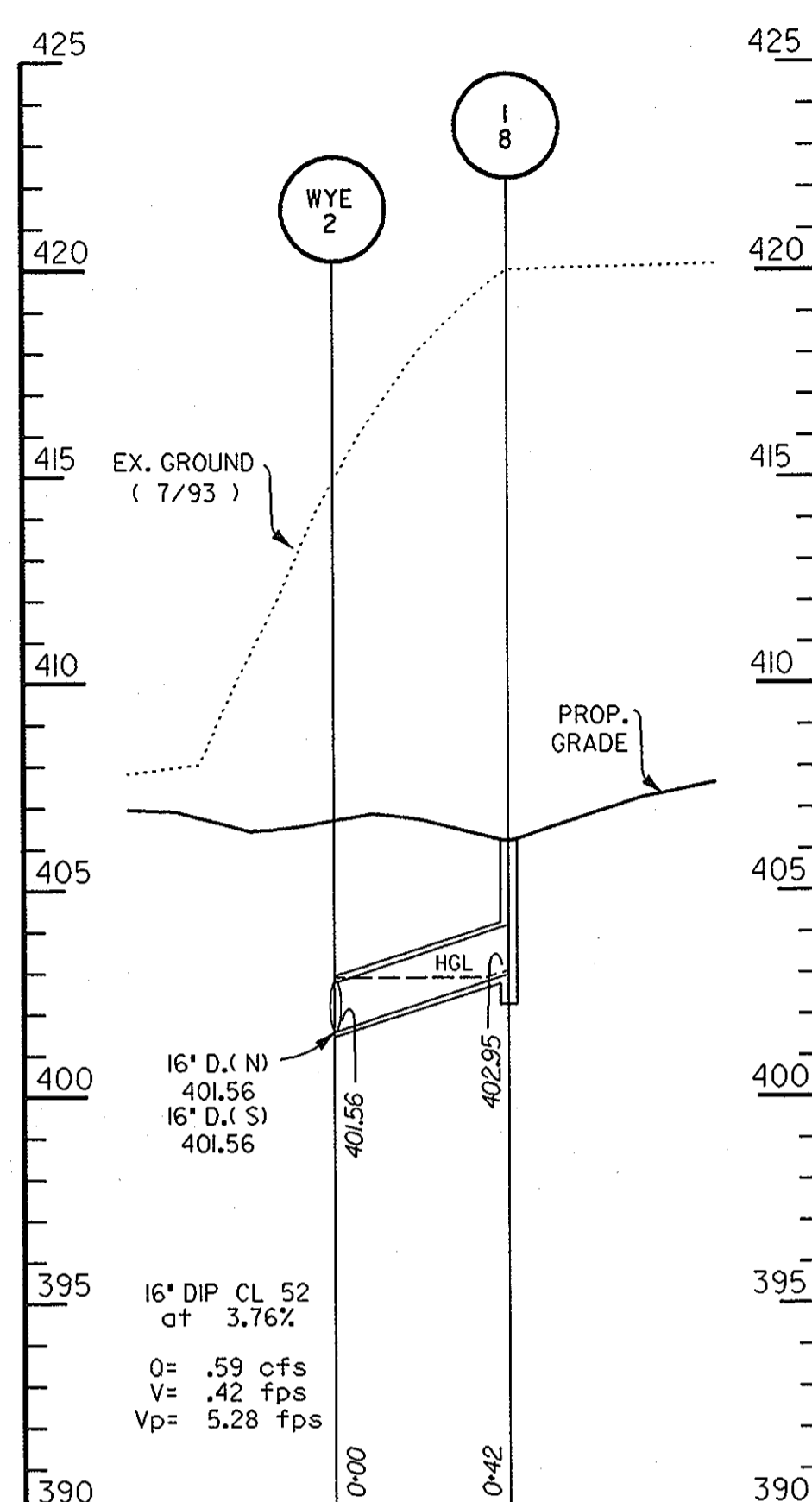
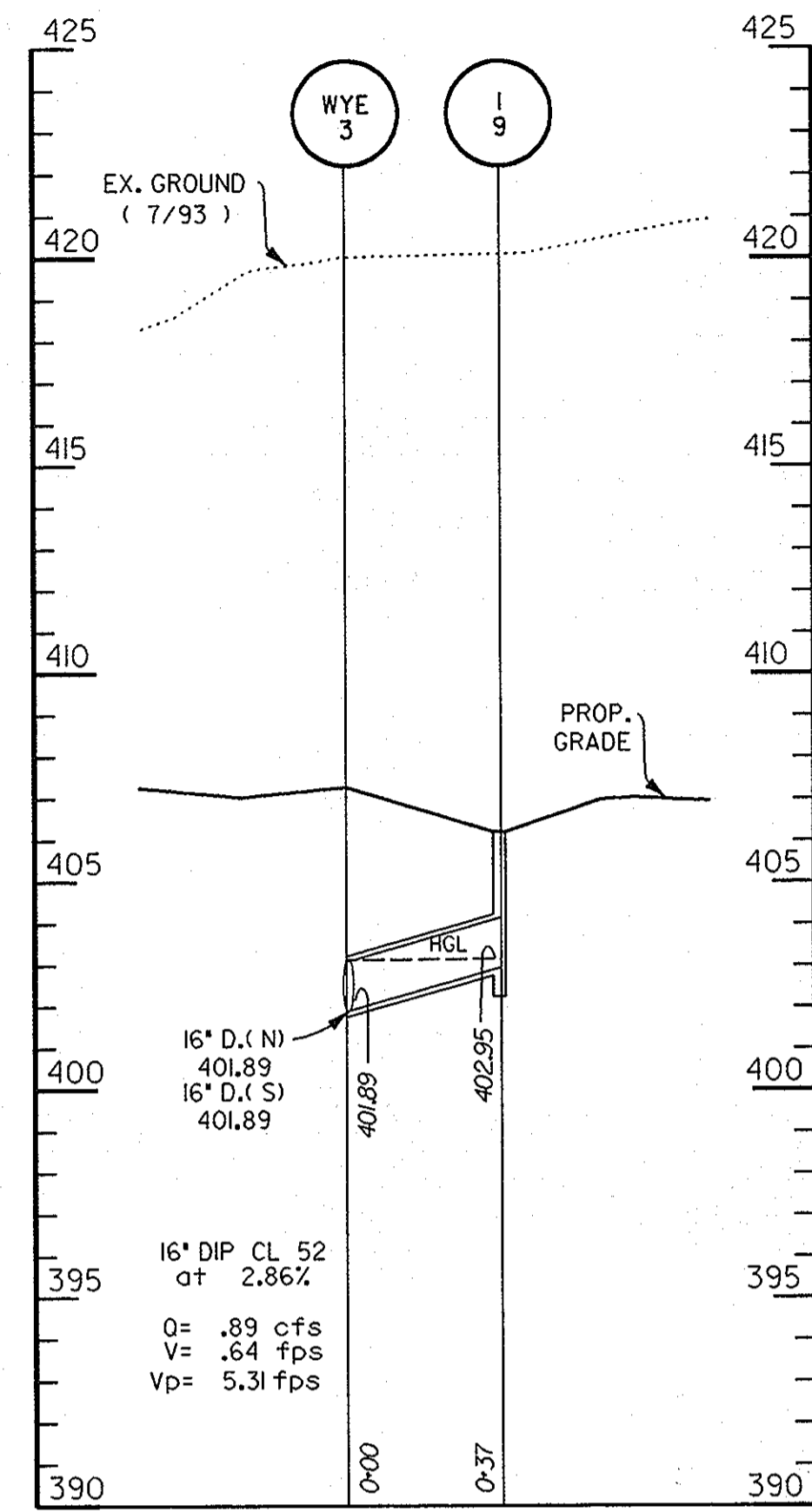
DMW
 Drafting & Construction, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3030

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

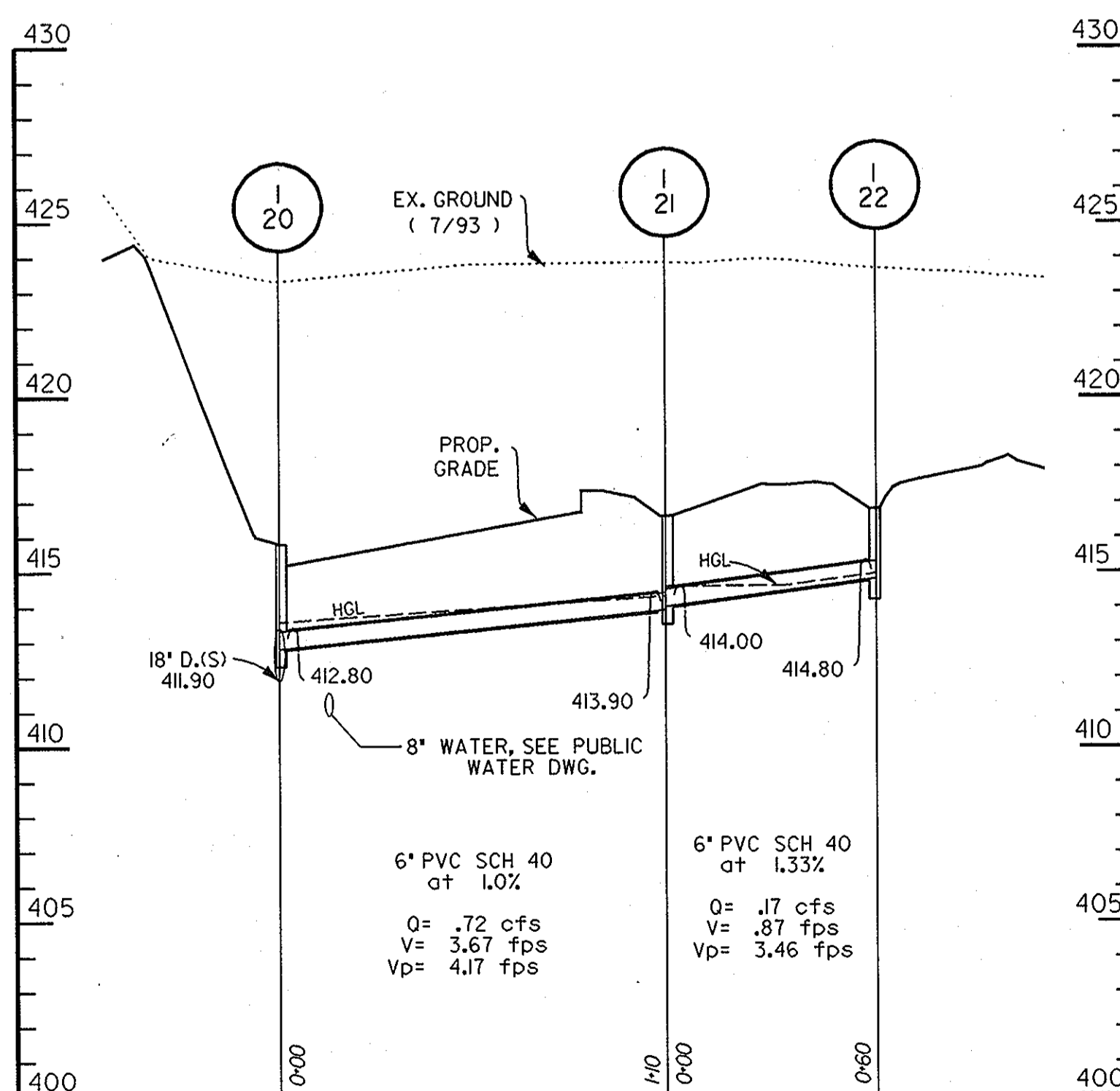
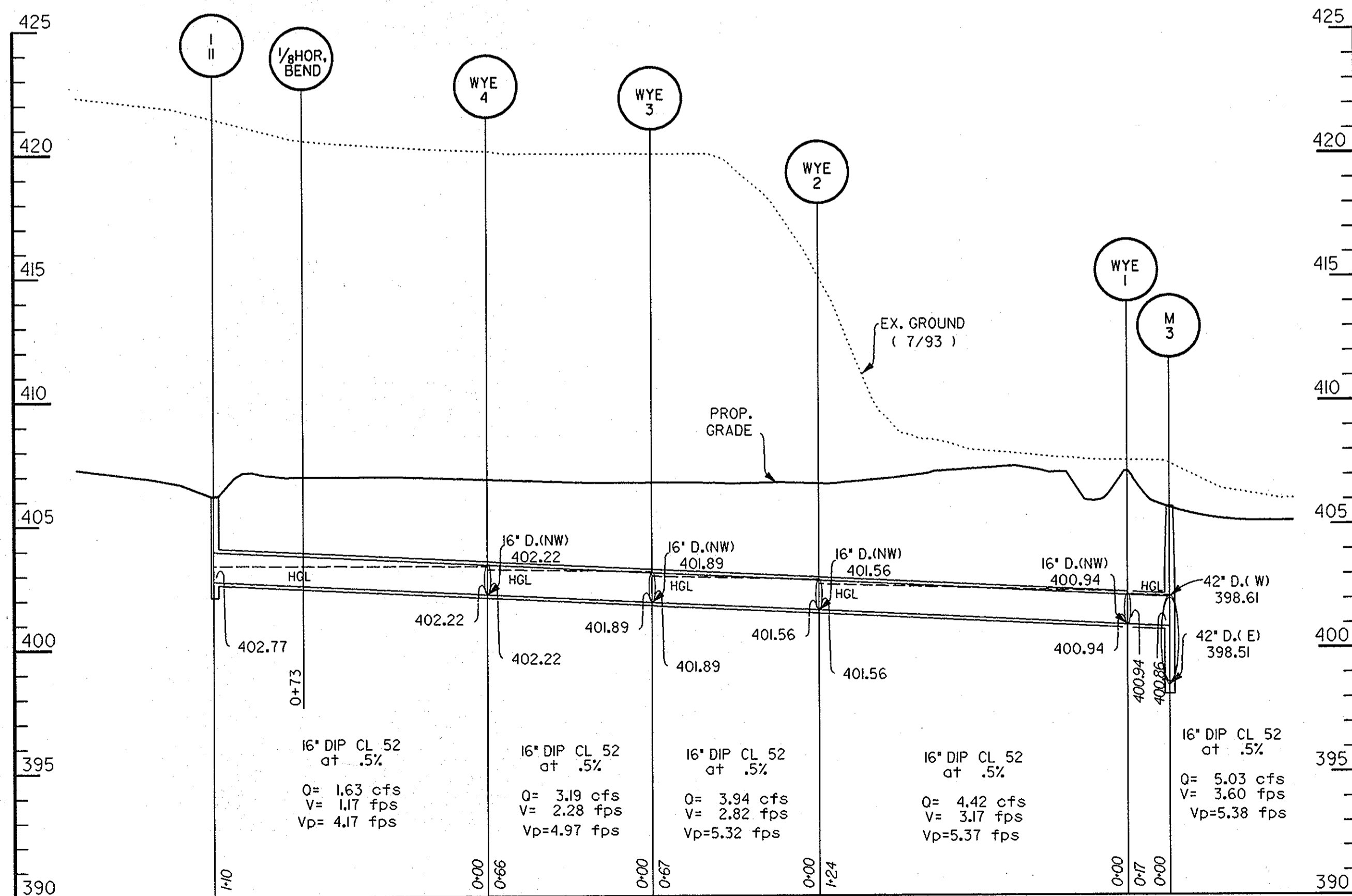
SUBDIVISION	SECTION	AREA	LOT/PARCEL #
VILLAGE OF LONGREACH	SEC. 3	AREA 2	93.657
PLAT #	BLK. #	TRAC. #	GEN. TRACT
11270-73	1	6TH	6067.03
WATER CODE	SEWER CODE		
E 06	3530000		

TITLE
STORM DRAIN PROFILES

Des By	CEV	Scale	AS SHOWN	Proj. No.	92087A
Dm By	CEV	Date	1-12-94		
Chk By	LWW	Approved			9 OF 32 34



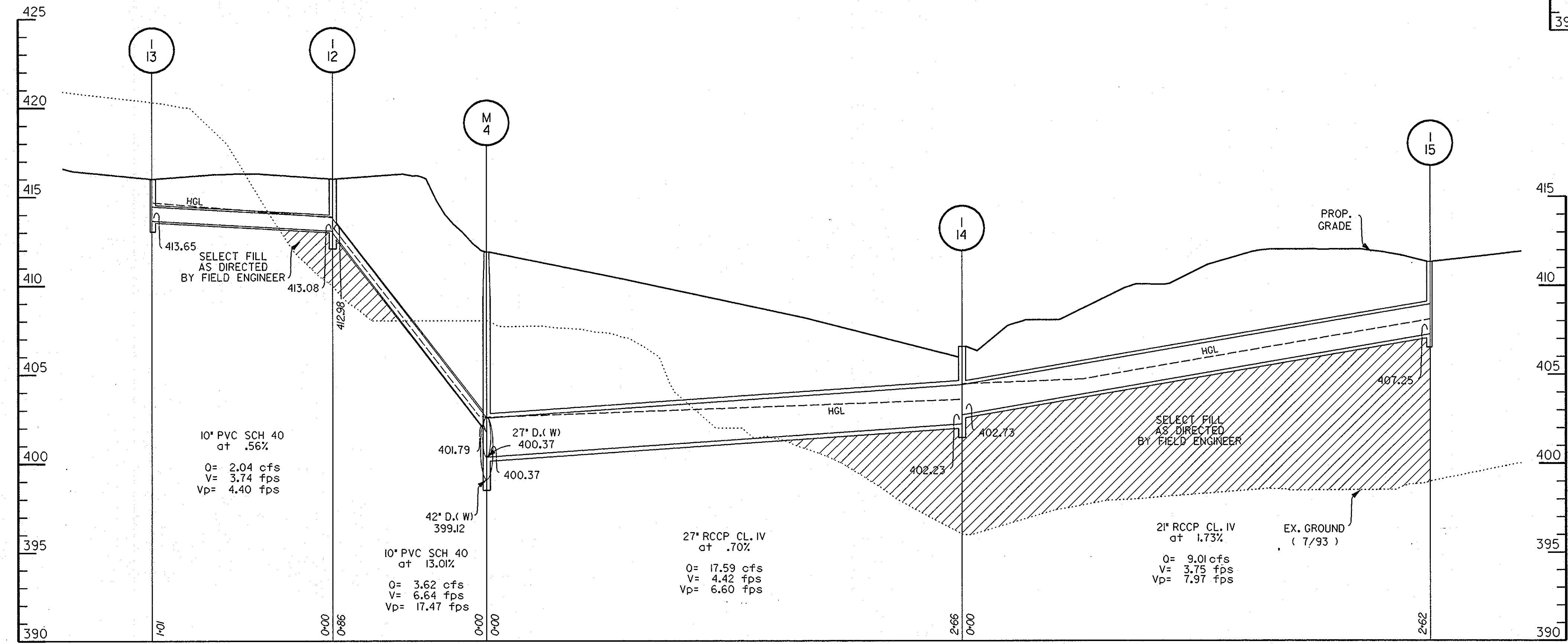
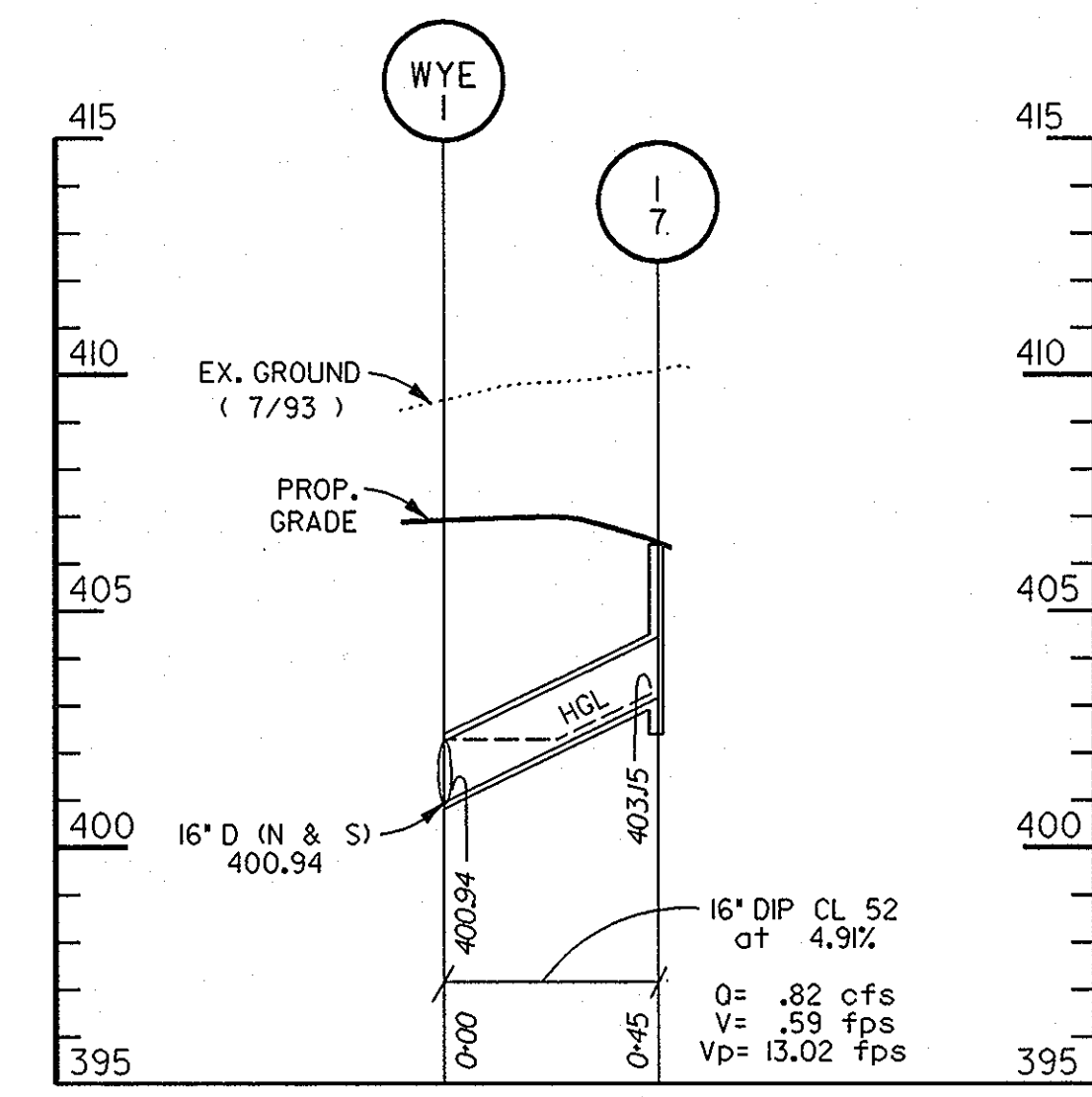
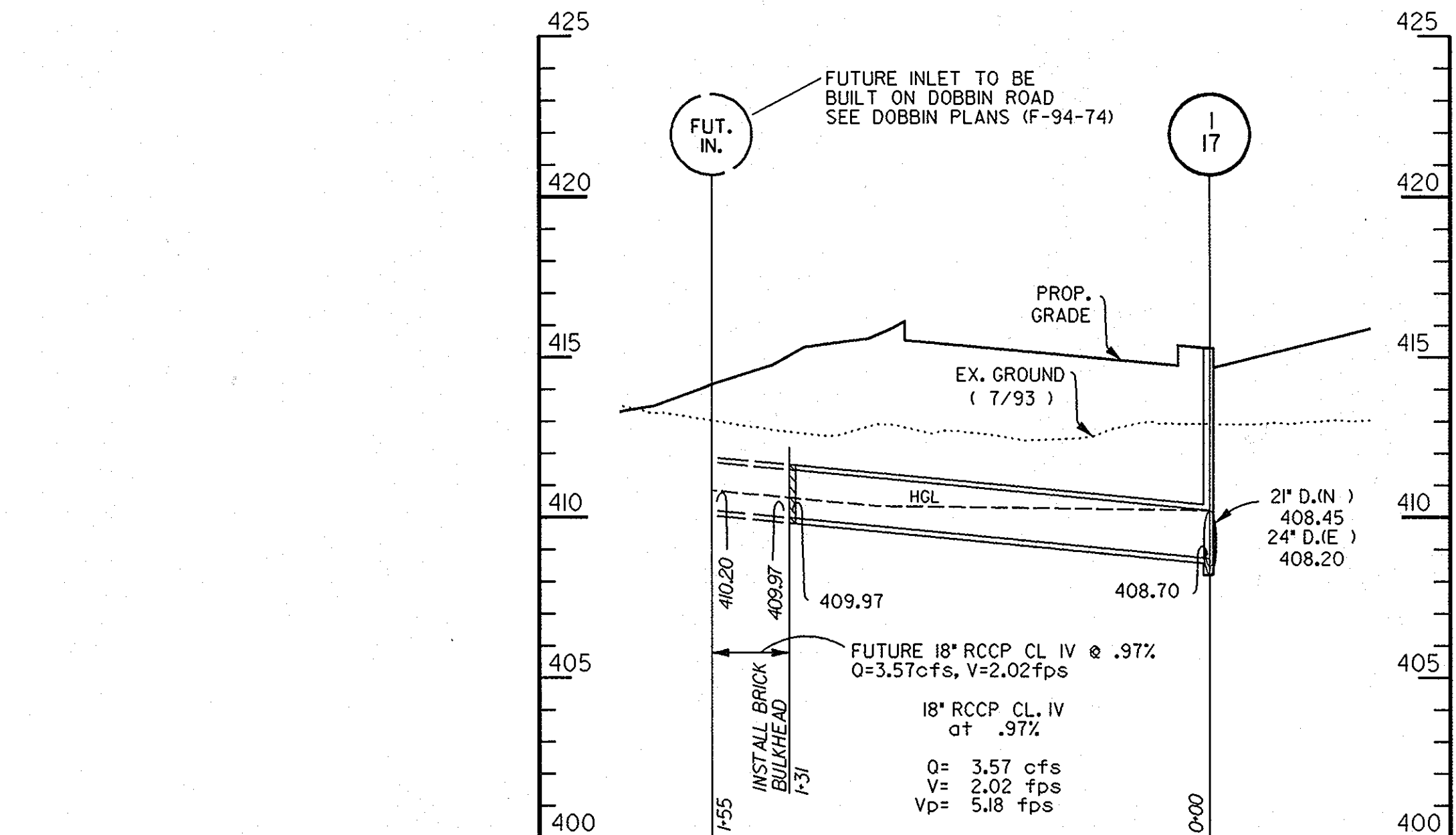
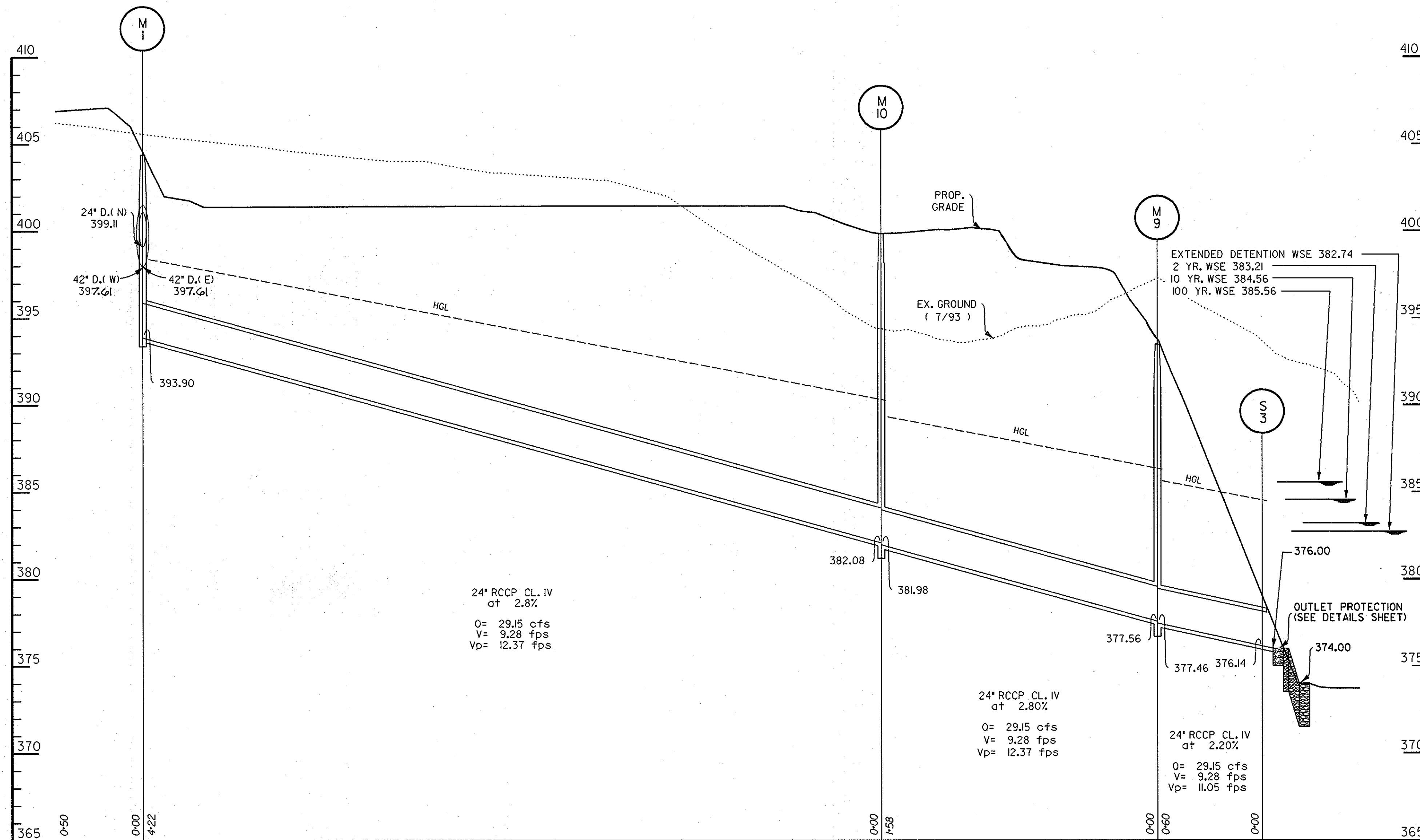
APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE 14 April '94



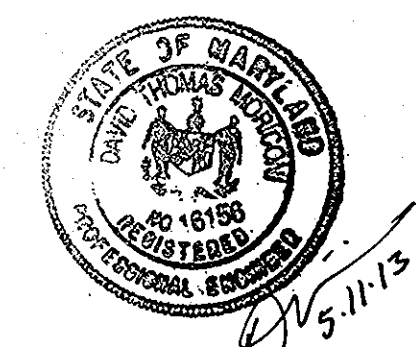
SEAL APPLIES TO REVISION NO. 1
 SCALE: HORIZ = 1" = 40'
 VERT. = 1" = 4'

3-1-94
 Date
 16998
 Professional Engr. No.

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	
<i>James M. ...</i> COUNTY HEALTH OFFICER	6-23-94 DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>James ...</i> DIRECTOR	6/29/94 DATE
<i>Anna ...</i> CHIEF, LAND DEVELOPMENT & RESEARCH	6/28/94 DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>James ...</i> DIRECTOR	6/21/94 DATE
<i>Paul ...</i> CHIEF, BUREAU OF ENGINEERING	6/20/94 DATE
5-2013	<input type="checkbox"/> REVISION NO. 1 - CHANGED SHEET NO.
Date	No. Revision Description
EASTERN HIGH SCHOOL	
OWNER / DEVELOPER: HOWARD COUNTY PUBLIC SCHOOL SYSTEM 10910 RT.108 ELLCOTT CITY, MARYLAND 21042-6198	
DMW Darr McCune-Walker, Inc. 300 East Pennsylvania Avenue Towson, Maryland 21286 (410) 296-3338 Fax: 296-4702	
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals	
SUBDIVISION: VILLAGE OF LONGREACH	SECTION: SEC. 3 AREA 2
LOT/PARCEL # 93.657	
PLAT OR LE # 11270-73	BLK # 7
TAXONOMIC MAP # 39	ELECT. DISTRICT # 6TH
CENSUS TRACT # 6067.03	
WATER CODE # E 06	SEWER CODE # 3830000
TITLE: STORM DRAIN PROFILES	
Des By: CEV	Scale: AS SHOWN
Proj. No.: 92087A	
Dm By: CEV	Date: 1-12-94
Chk By: LWW	Approved: <input checked="" type="checkbox"/>
10 OF 32	



SEAL APPLIES TO REDLINE REVISION NO. 1
 SCALE: HORIZ. = 1" = 40'
 VERT. = 1" = 4'



APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<i>James M. Boyd</i>	6-23-94
COUNTY HEALTH OFFICER	DATE	
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>James Smith</i>	6/29/94
DIRECTOR	DATE	
<i>John J. Summery</i>	6/28/94	
CHIEF, LAND DEVELOPMENT & RESEARCH	DATE	
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>James P. Lewis</i>	6/21/94
DIRECTOR	DATE	
<i>Paul W. Seaman</i>	6/20/94	
CHIEF, BUREAU OF ENGINEERING	DATE	
5-2013	<input type="checkbox"/> REDLINE REVISION NO. 1 - CHANGED SHEET NO.	
Date	No.	Revision Description

EASTERN HIGH SCHOOL

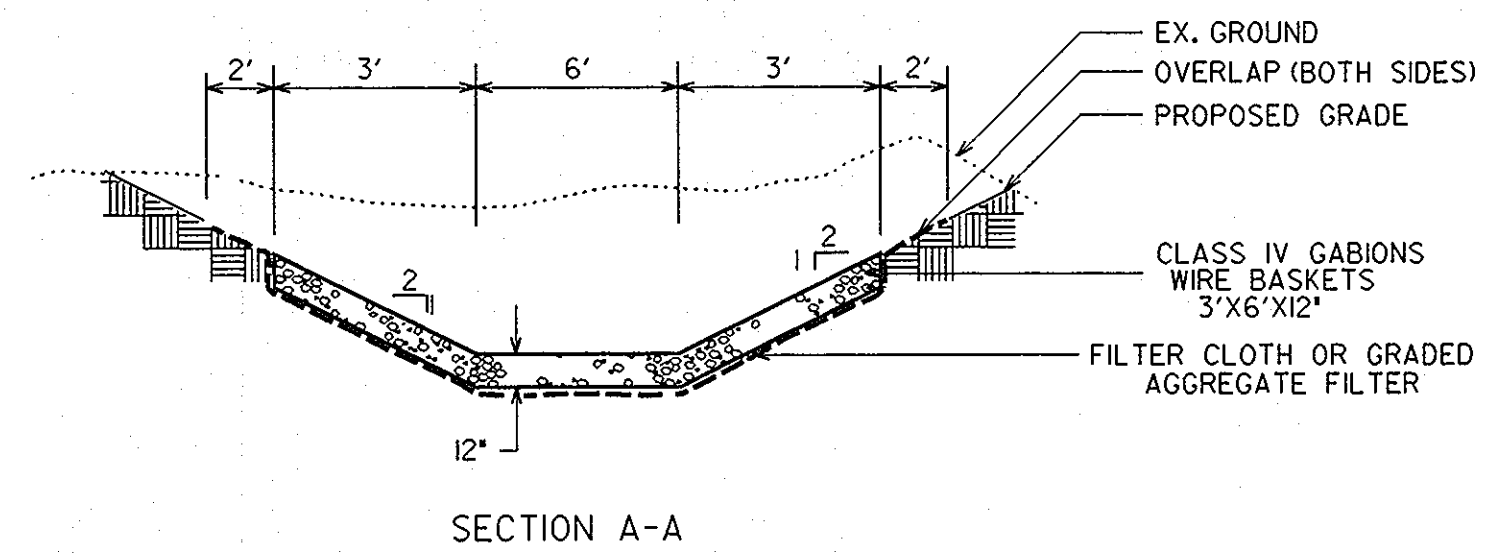
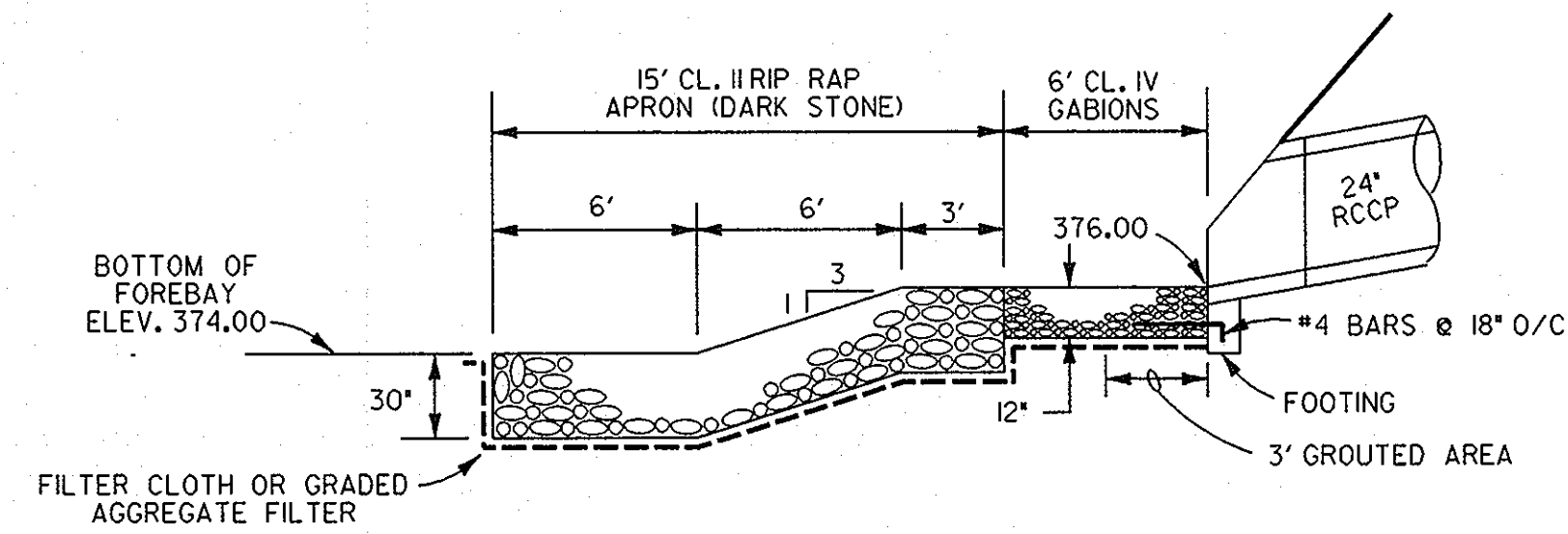
OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RT.108
 ELLICOTT CITY, MARYLAND 21042-6198

DMW
 Daft McCune Walker, Inc.
 300 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4705

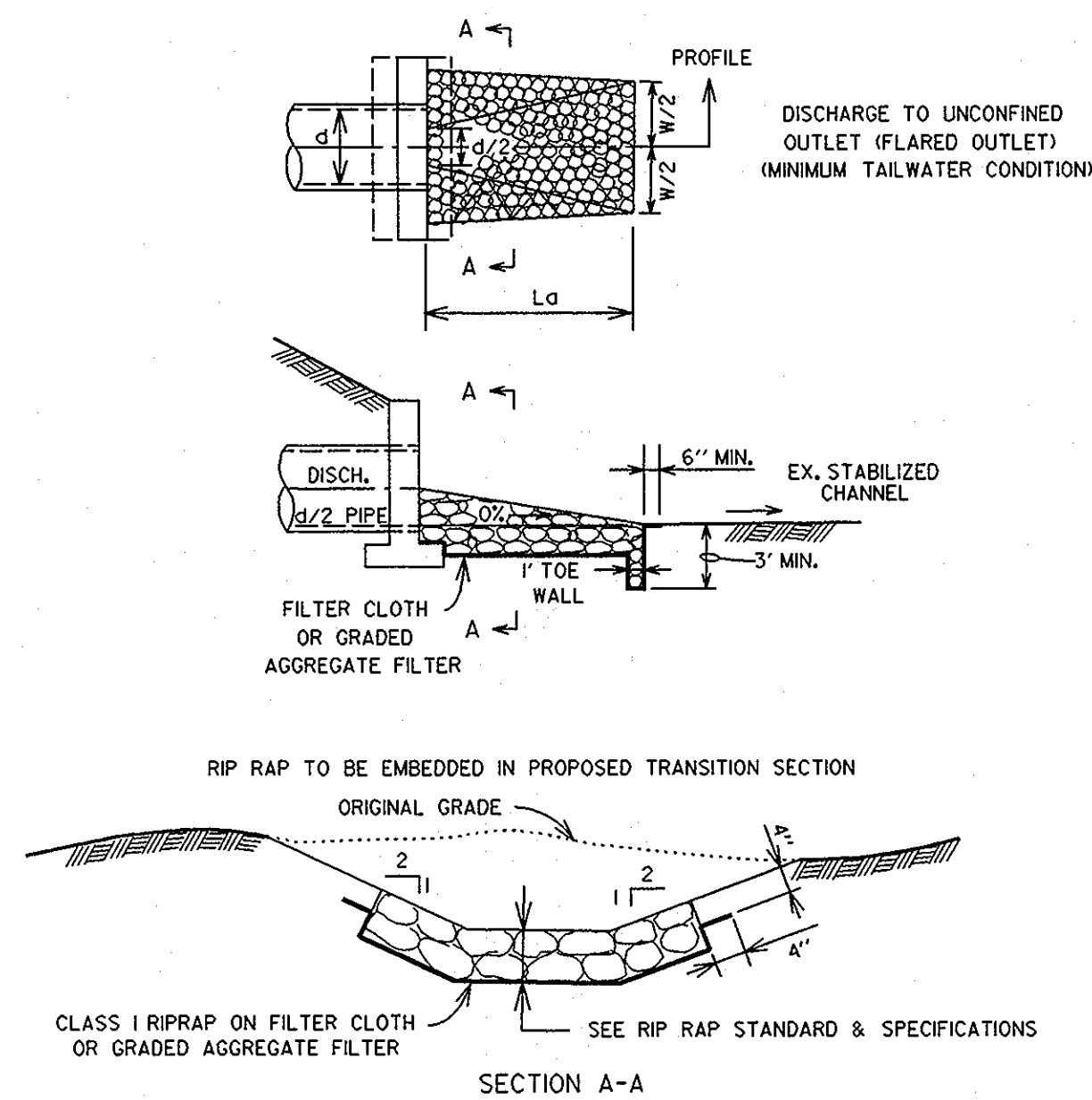
5-10-94
 Date

 Professional Engr. No. 6998

SUBDIVISION	SECTION/AREA	DATE
VILLAGE OF LONGBEACH	SEC. 3, AREA 2	93.657
PLAT NO.	TAXONE MAP	ELECT. DISTRICT
11270-73	36	6TH
WATER CODE	SEWER CODE	GEN. TRACT
E 06	3530000	6067.03
TITLE		
STORM DRAIN PROFILES		
Des By	Scale	Proj. No.
CEV	AS SHOWN	92087A
Dm By	Date	
CEV	1-12-94	
Chk By	Approved	
LWW		11 OF 32 34

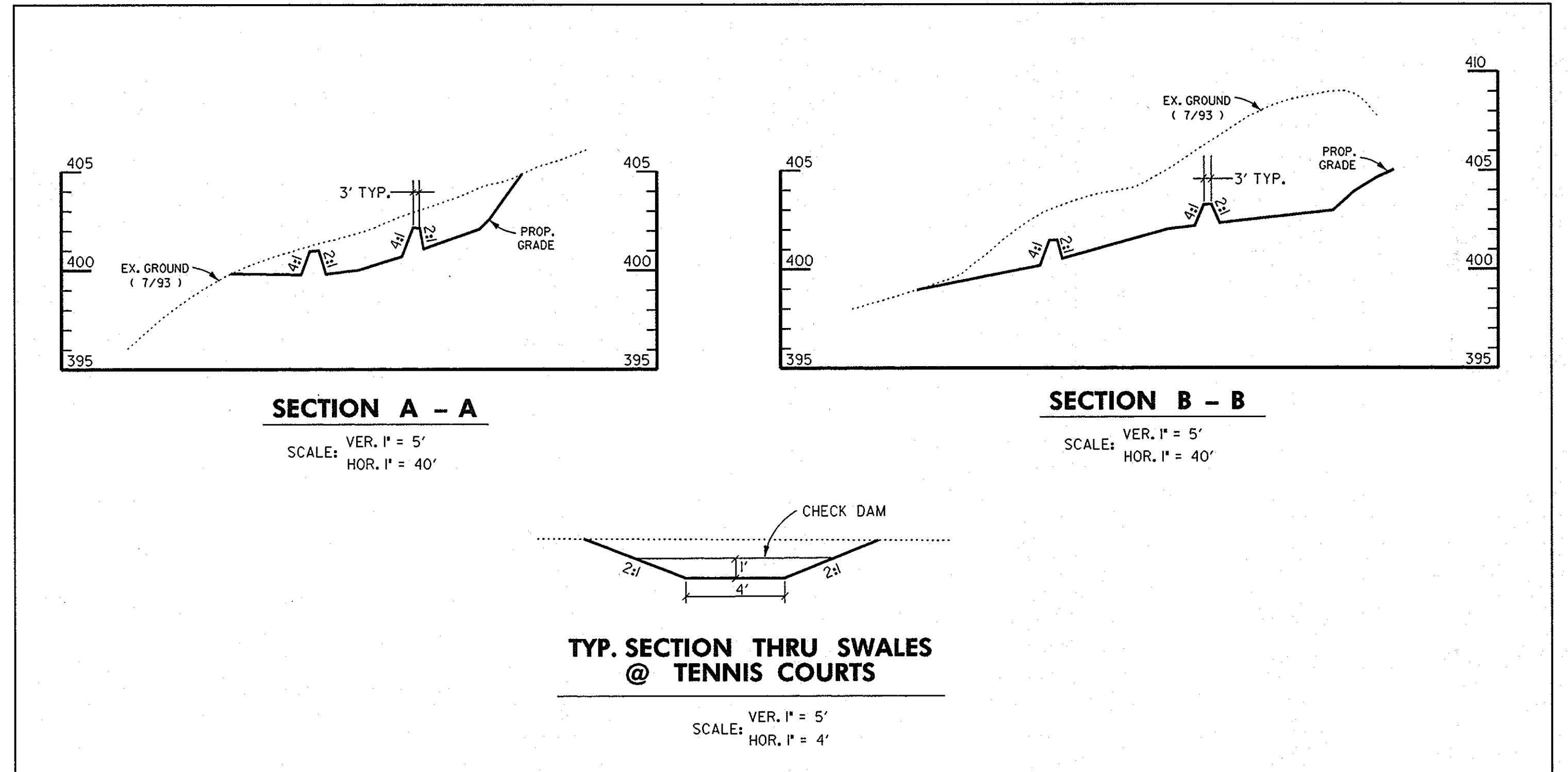


OUTLET PROTECTION FOR S-3
NOT TO SCALE

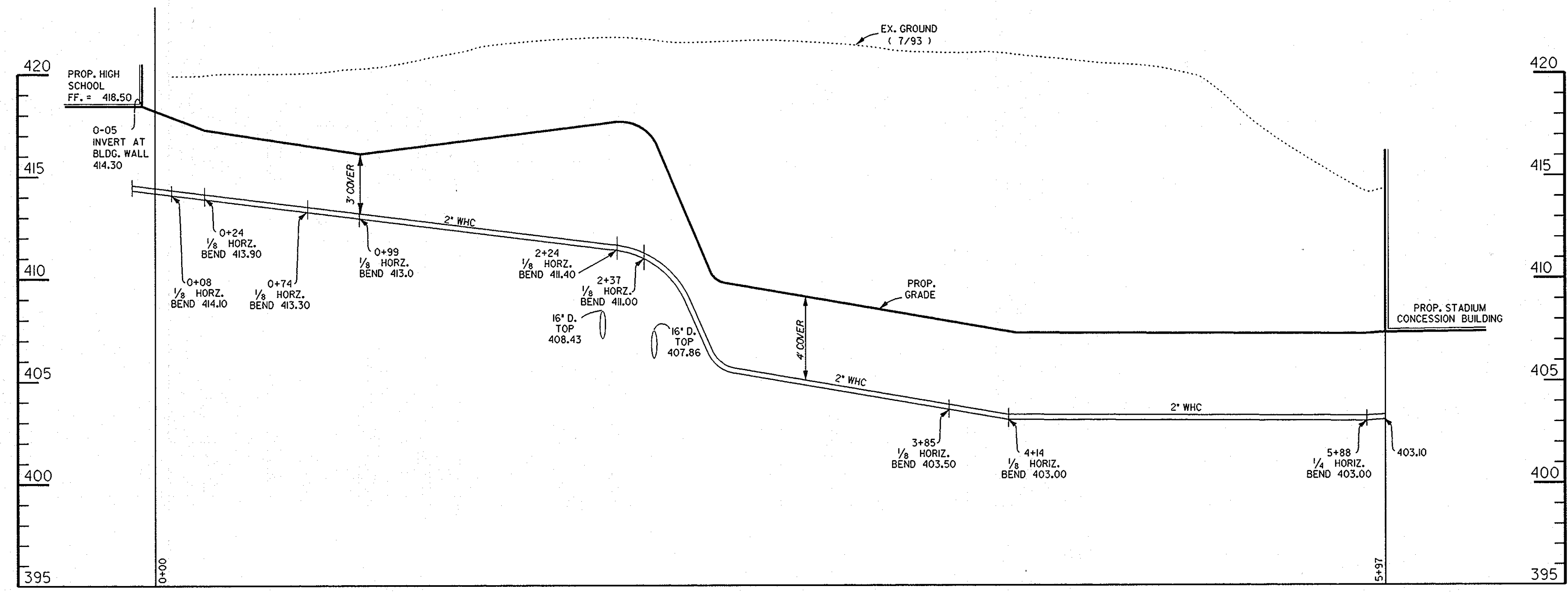


STRUCTURE NO.	LENGTH (FT.)	WIDTH (FT.)	THICKNESS (IN.)
S-1	5'	19'	18"
S-2	6'	4'	18"
S-4	8'	10'	18"
S-5	6'	7'	18"
S-7	11'	4'	18"
S-8	4'	4'	18"

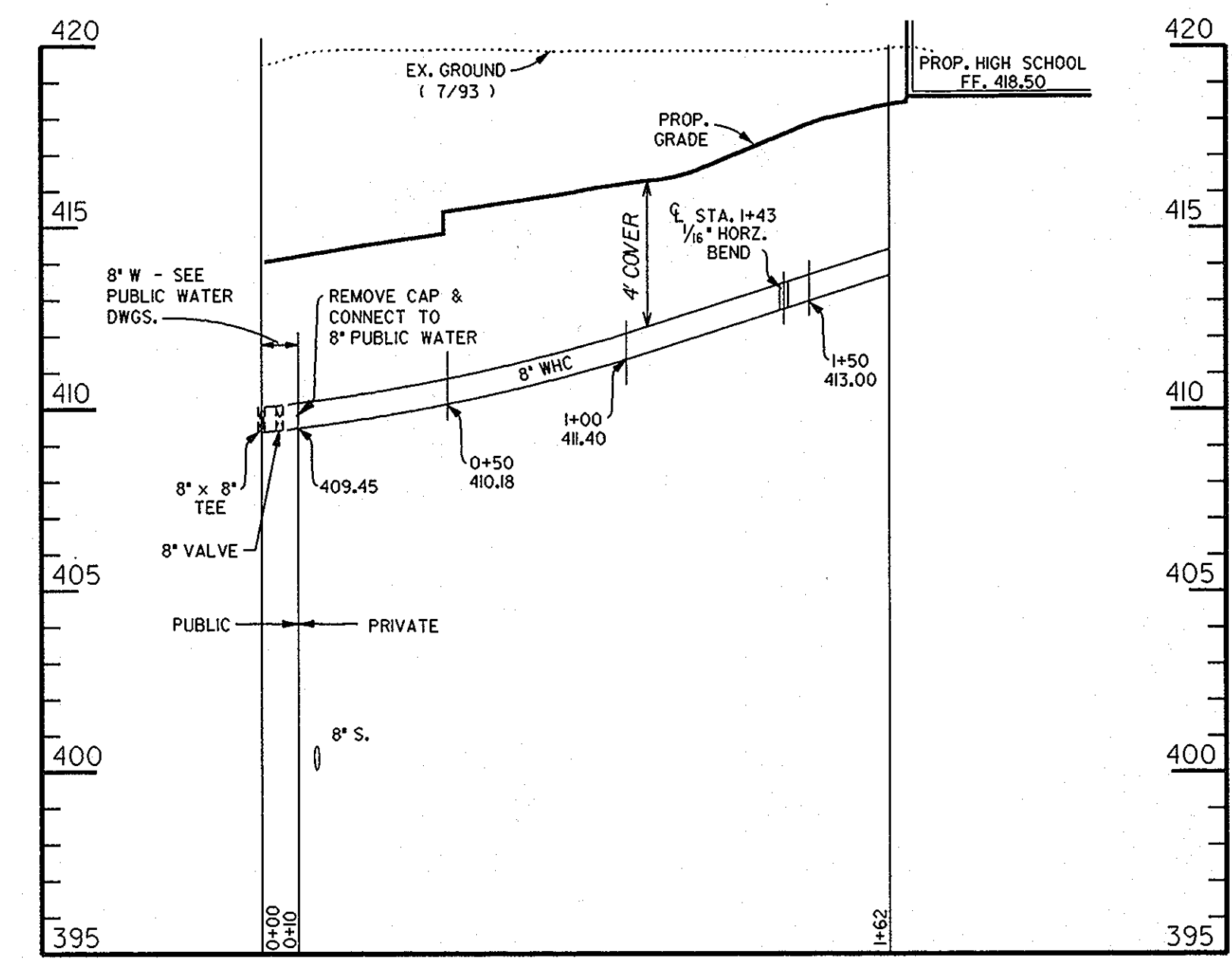
RIPRAP OUTLET PROTECTION I



GRASS SWALE W/CHECK DAM CROSS SECTIONS



SCALE: VER. 1" = 4'
HOR. 1" = 40'



SCALE: VER. 1" = 4'
HOR. 1" = 40'

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: [Signature] DATE: 6-23-94
 APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 DIRECTOR: [Signature] DATE: 6/29/94
 CHIEF, LAND DEVELOPMENT & RESEARCH: [Signature] DATE: 6/28/94
 APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: [Signature] DATE: 6/14/94
 CHIEF, BUREAU OF ENGINEERING: [Signature] DATE: 6/20/94

EASTERN HIGH SCHOOL
OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLICOTT CITY, MARYLAND 21042-6198

DMW
Duff McCune-Walker, Inc.
200 East Pennsylvania Avenue
Potosi, Maryland 21286
(410) 296-3333
Fax 296-4705

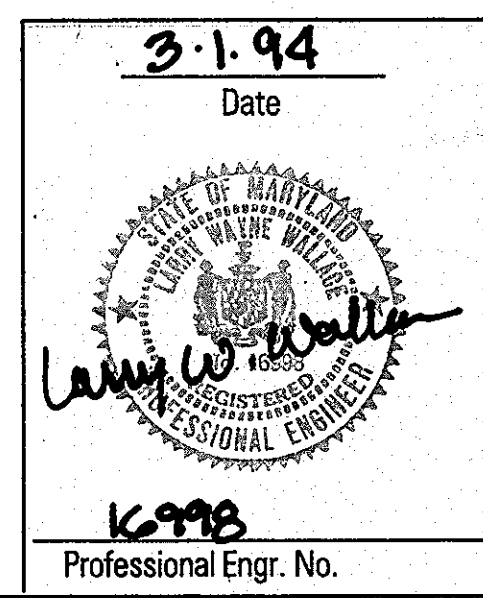
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

DATE: 3-1-94

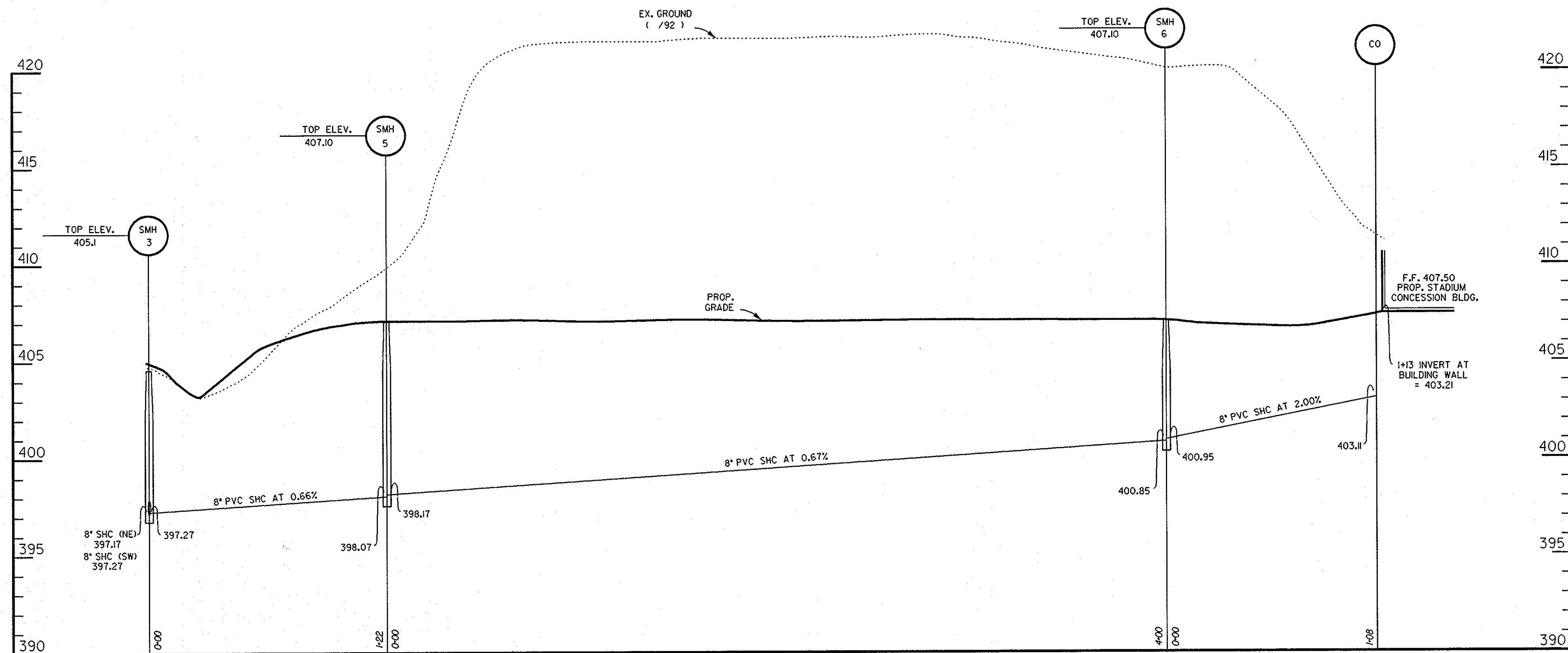
TITLE: **STORM DRAIN DETAILS**
WATER HOUSE CONNECTION PROFILES

Des By: JMG Scale: AS SHOWN Proj. No. 92087A
 Dm By: DMA Date: 1-12-94
 Chk By: LWW Approved

13 OF 32 34

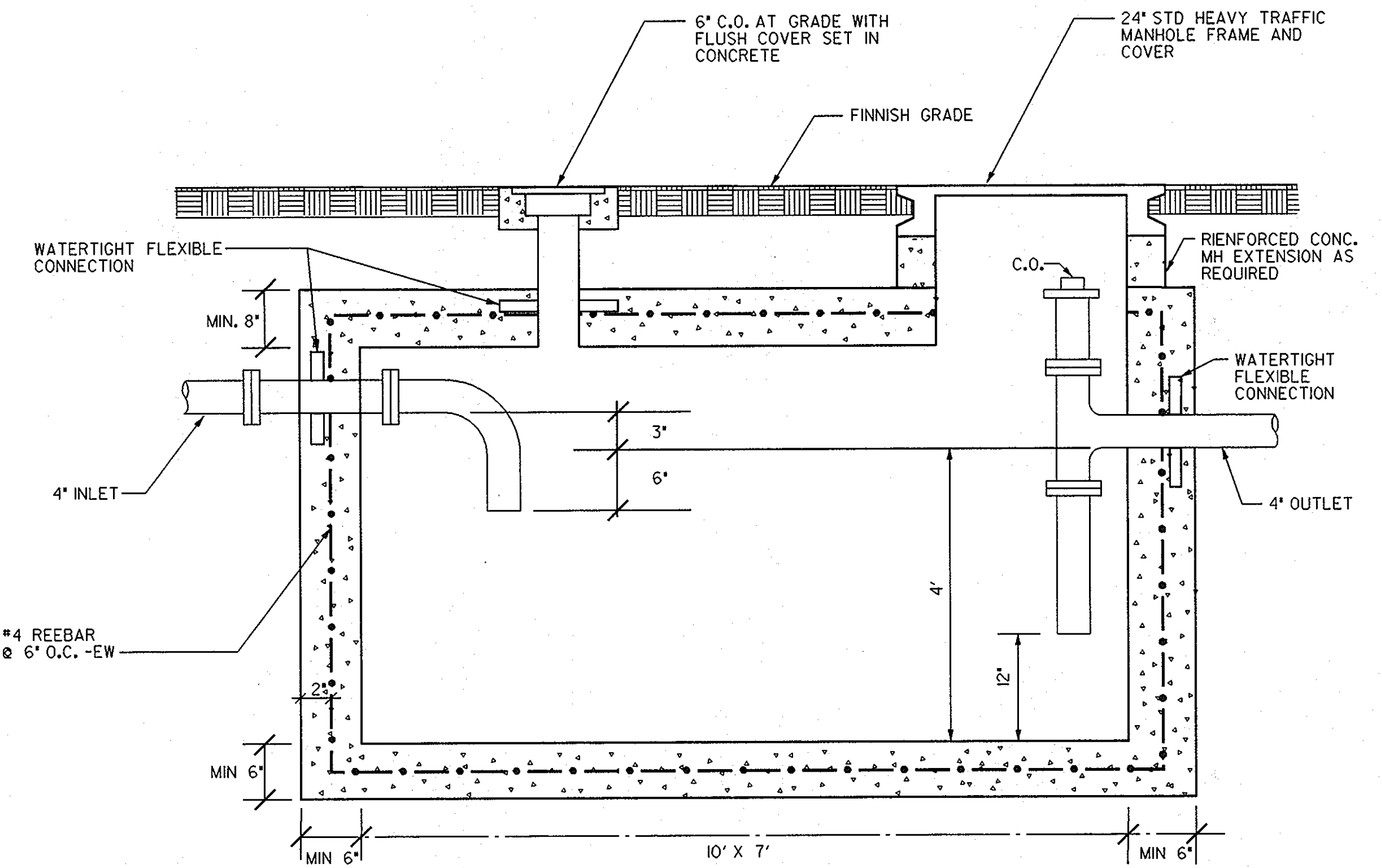


SEAL APPLIES TO REDLINE REVISION NO. 1



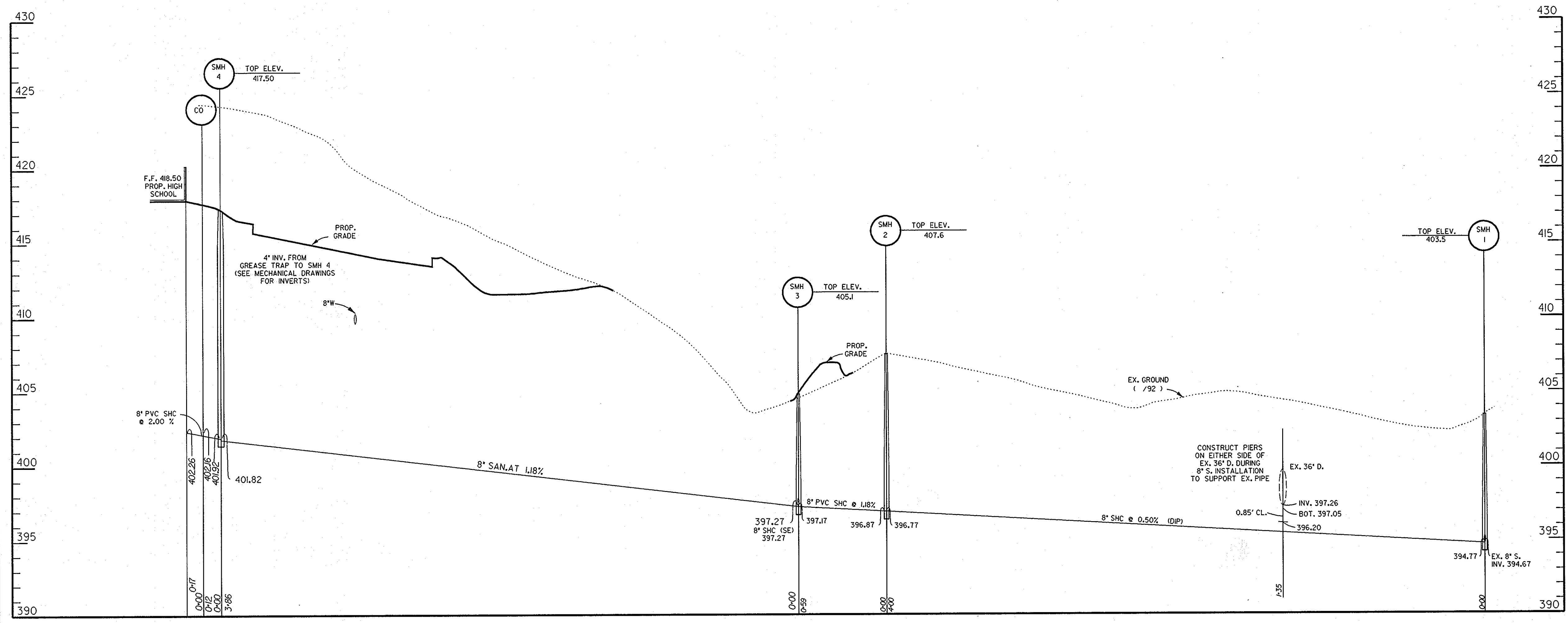
SCALE: VER. 1" = 4'
HOR. 1" = 40'

*NOTE: ALL SEWER MANHOLES SHALL BE AS PER HO. CO. G5.01 - 4' MANHOLES
*NOTE: ALL SEWER MANHOLE FRAMES AND COVERS SHALL BE AS PER HO. CO. G5.52 - WATERTIGHT MANHOLE FRAME AND COVER



TYP. CROSS SECTION
GREASE TRAP DETAIL
NOT TO SCALE
(SEE MECHANICAL DRAWINGS FOR ADDITIONAL DETAILS)
(GREASE TRAP NOT INCLUDED IN BID PACKAGE 2A. 2A CONTRACTOR RESPONSIBLE FOR FINAL PIPING AND CONNECTIONS TO GREASE TRAP.)

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE: 4 April 94



SCALE: VER. 1" = 4'
HOR. 1" = 40'

3-1-94
Date

Professional Engr. No. 16998

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	
<i>Joseph M. Boyd</i> COUNTY HEALTH OFFICER	6-23-94 DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>James L. Smith</i> DIRECTOR	6/29/94 DATE
<i>Ann Summons</i> CHIEF, LAND DEVELOPMENT & RESEARCH	6/28/94 DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	
<i>James J. Lee</i> DIRECTOR	6/1/94 DATE
<i>Robert J. Mason</i> CHIEF, BUREAU OF ENGINEERING	6/20/94 DATE
5-2413	REVISION REVISION NO. 1 - CHANGED SHEET NO.
Date	No.

EASTERN HIGH SCHOOL
OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

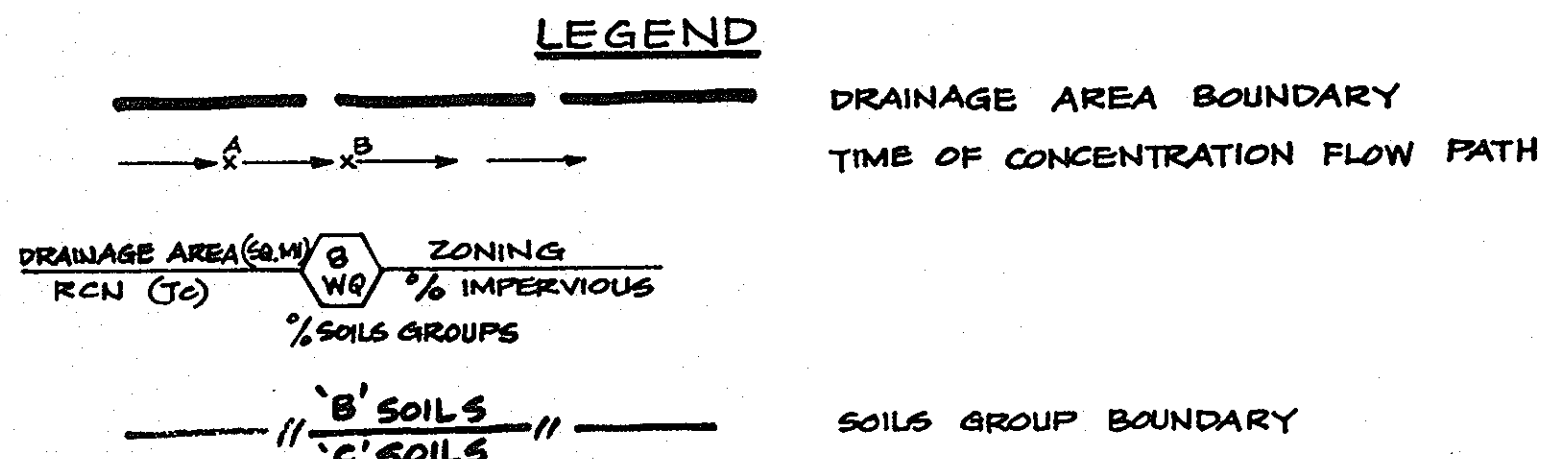
DMW
Duff McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3338
Fax: 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

SUBDIVISION	VILLAGE OF LONGREACH	SECTION	SEC. 3 / AREA 2	LOTPARCEL #	93 / 057
PLAT	11270-73	BLOCK	7	TAXATION MAP	38
WATER CODE	E 06	SEWER CODE	3530000	GENUS TRACT	6067.03

TITLE: **SEWER HOUSE CONNECTION PROFILES**

Des By	MAT	Scale	1" = 40'	Proj. No.	92087A
Dm By	DMA	Date	1-12-94		
Chk By	LWW	Approved			14 OF 32 34



Design Point 'A'

Predeveloped and Developed Peak Flow Rates

	2-Year	10-Year	100-Year
Predeveloped Peak (cfs)*	30.52	77.36	135.33
Developed Peak (cfs)	15.50	63.46	119.74

* Taken from the Purdum and Jeschke study (TR-20 Structure 09), (S87-46)

Design Point 'E'

Predeveloped and Developed Peak Flow Rates

	2-Year	10-Year	100-Year
Predeveloped Peak (cfs)*	36.81	111.42	206.70
Developed Peak (cfs)	33.73	56.84	93.98

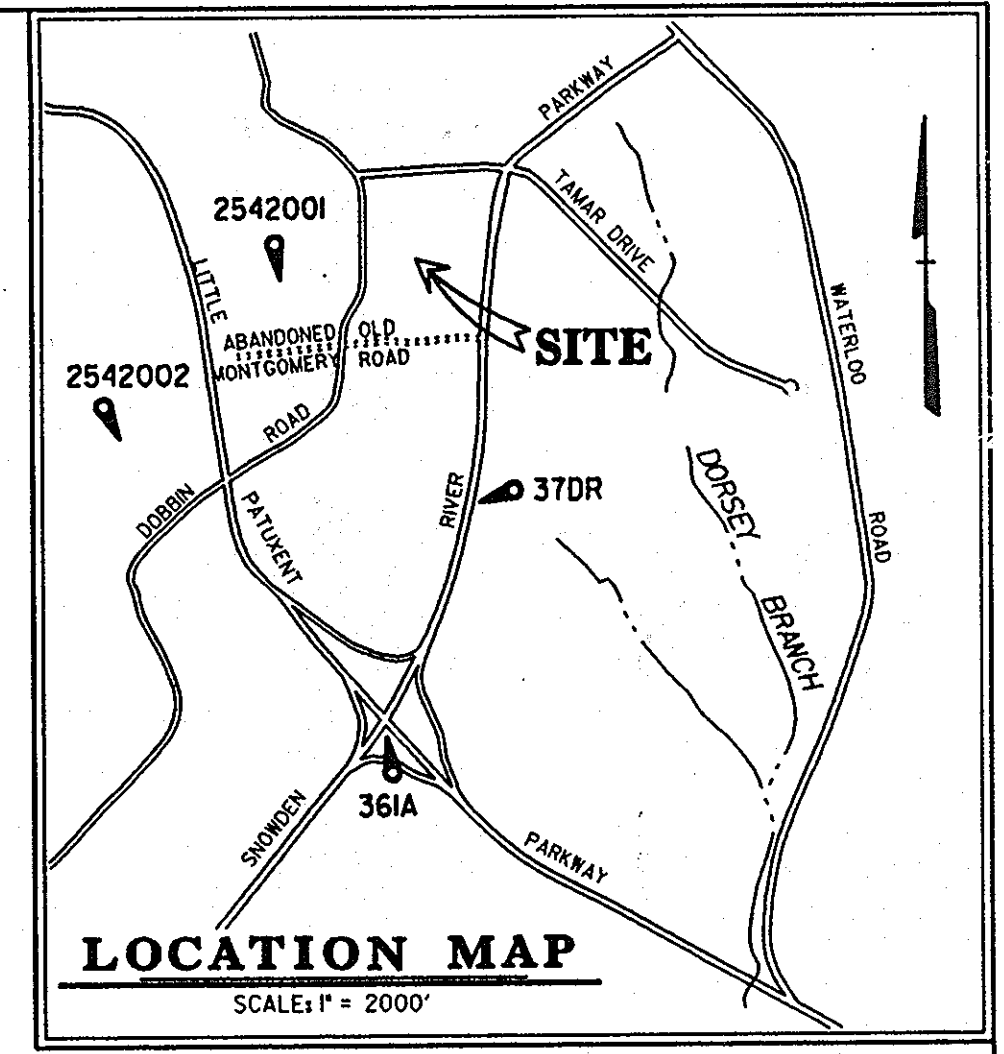
* Taken from the Purdum and Jeschke study (TR-20 Structure 06), (S87-46)

Longreach Water Quality Pond (Structure 02)

	2-Year	10-Year	100-Year
Existing Inflow (cfs)*	32.57	56.45	63.52
Existing Outflow (cfs)*	5.97	38.95	41.49
Existing Water Surface Elevation*	383.21	384.46	384.84
Existing Storage Provided (ac-ft)*	1.23	1.60	1.74
Proposed Inflow (cfs)	60.05	85.93	94.59
Proposed Outflow (cfs)	6.13	40.27	44.28
Proposed Water Surface Elevation	383.21	384.56	385.56
Proposed Storage Provided (ac-ft)	2.70	3.46	4.06

Structure Type Dry Pond - Extended Detention
 Structure Classification A
 Structure Location Urban
 Storage Height Product 64.4 Ac-Ft
 Watershed Area to Facility ** 37.20 Ac.
 Minimum Top of Dam Elevation along
 Snowden River Parkway and Deep Earth
 Lane Right-of-Way 387.7
 Freeboard Provided 2.14 Feet

* Taken from Longreach Section 4, Area 3 (F 93-130)
 ** Includes total drainage area at DIVERT manholes



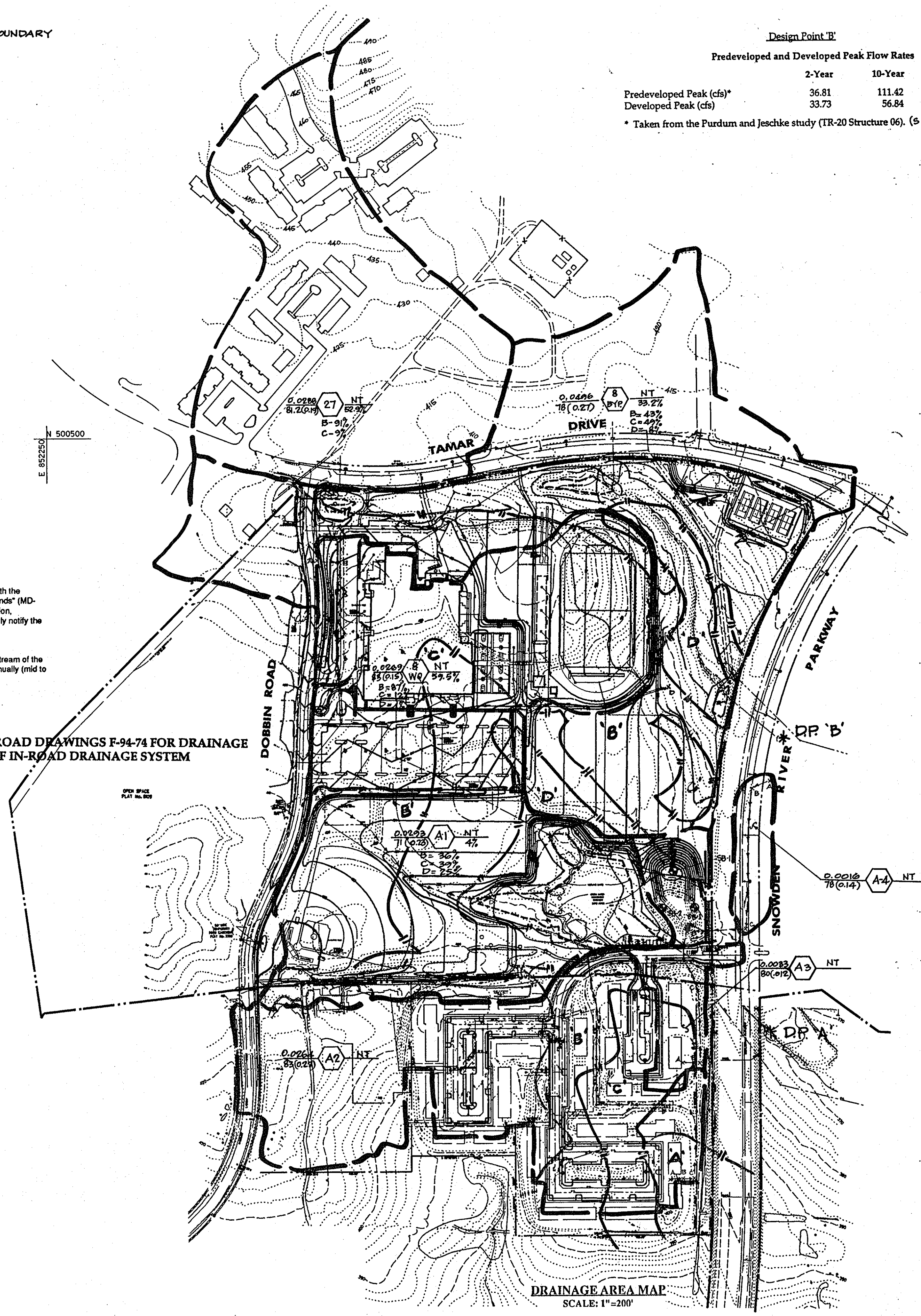
- Notes:**
- The water quality pond is an expansion of a public facility and shall be maintained by Howard County.
 - Two and 10-year peak management is required. Two, 10 and 100-year peak management is provided.
 - This site lies within the Dorsey Run watershed.
 - The water quality facility is Hazard Class 'A'.
 - Predeveloped peak runoff rates are taken from a previously approved Purdum and Jeschke study (S87-46).

OPERATION, MAINTENANCE AND INSPECTION

Inspection of the pond(s) shown herein shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS "Standards and Specifications for Ponds" (MD-378). Howard County shall be responsible for the safety of the pond and the continued operation, surveillance, inspection, and maintenance thereof. The Howard County Inspector shall promptly notify the Soil Conservation District of any unusual observations that may be indications of distress such as excessive seepage, turbid seepage, sliding or slumping.

The embankment, a twenty-five foot wide buffer strip adjacent to the toe, upstream and downstream of the embankment, and the area within fifty feet of the control structures shall be mowed at least annually (mid to late summer) but may be done more often as desired.

SEE PUBLIC ROAD DRAWINGS F-94-74 FOR DRAINAGE AREA MAP OF IN-ROAD DRAINAGE SYSTEM



Developer Certification

"I certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide a signed and sealed report of construction and inspection. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Cathleen Conley Young 6/20/94
 Signature of Developer Date
 CATHLEEN CONLEY YOUNG
 First Name

Engineer Certification

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide a signed and sealed report of construction and inspection."

Larry W. Wallace 1/12/94
 Signature of Engineer P.E. No. Date
 LARRY W. WALLACE
 First Name

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for erosion and sediment control.

D.G. Waples 6/14/94
 Signature of Soil Conservation Service Date
 D.G. WAPLES
 First Name

These plans for erosion and sediment control meet the requirements of the Howard Soil Conservation District.

John J. ... 6/14/94
 Signature of Howard Soil Conservation District Date

As-Built Certification

I hereby certify that the facility shown on this plan was constructed as shown on the "as-built" plans and meets the approved plans and specifications.

Signature _____ P.E. No. _____
 First Name _____ Date _____

Certify means to state or declare a professional opinion based upon onsite inspections and material tests which are conducted during construction. The onsite inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an engineer's certification relieve any other party from meeting requirements imposed by contract, employment, or other means, including meeting commonly accepted industry practices.

APPROVED

PLANNING BOARD
 OF HOWARD COUNTY

DATE 14 April 94

SEAL APPLIES TO REDLINE
 REVISION NO. 1

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
 HOWARD COUNTY HEALTH DEPARTMENT

John M. ... 6-23-94
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James ... 6/23/94
 DIRECTOR DATE

Ann ... 6/28/94
 CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James ... 6/21/94
 DIRECTOR DATE

Charles ... 6/20/94
 CHIEF, BUREAU OF ENGINEERING DATE

5-2413 REDLINE REVISION NO. 1 - CHANGED SHEET NO.

Date No. Revision Description

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
 HOWARD COUNTY SCHOOL SYSTEM
 10910 RT. 108
 ELLICOTT CITY, MARYLAND 21042-6198

DMW

Draft McCona Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4706

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

SUBDIVISION NAME: VILLAGE OF LONGREACH SECTION/AREA: SEC 5/AREA 2 LOT/PARCEL: 93/657
 SHEET NO.: 11270-74 7 INT. TAX/ZONE MAP: 26 ELECT. DISTRICT: 26 PERMS TRACT: 6067.03
 WATER CODE: E06 SEWER CODE: 3530000

TITLE: STORMWATER MANAGEMENT DRAINAGE AREA MAP SITEWORK BID 21 MARCH 94

Des By JMG Scale 1" = 200' Proj. No. 92087A
 Dm By DBS Date 1-12-94
 Chk By EIS Approved 15 OF 32

Professional Engr. No. 16783

CONSTRUCTION SPECIFICATIONS

1. GENERAL
All stormwater management facilities shall be constructed in accordance with Howard County's "Design Manual, Volume I - Storm Drainage (1990)" and the S.C.S. Maryland "Standard and Specifications for Ponds" (MD-378, 1992).
These specifications are appropriate to all ponds within the scope of the Standard practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

2. SITE PREPARATION
Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.
Area to be covered by the reservoir will be cleared of all trees, brush, logs, fence rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 50 foot radius around the inlet structure shall be cleared.
All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

3. EARTH FILL
MATERIAL The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6" frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification CC, SC, CH or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer.
PLACEMENT Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.
COMPACTION The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.
All compaction is to be not less than 95 percent of the maximum dry density as determined by AASHTO Specification T-99 (Standard Proctor) with a moisture content within + 2 percent of optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction.

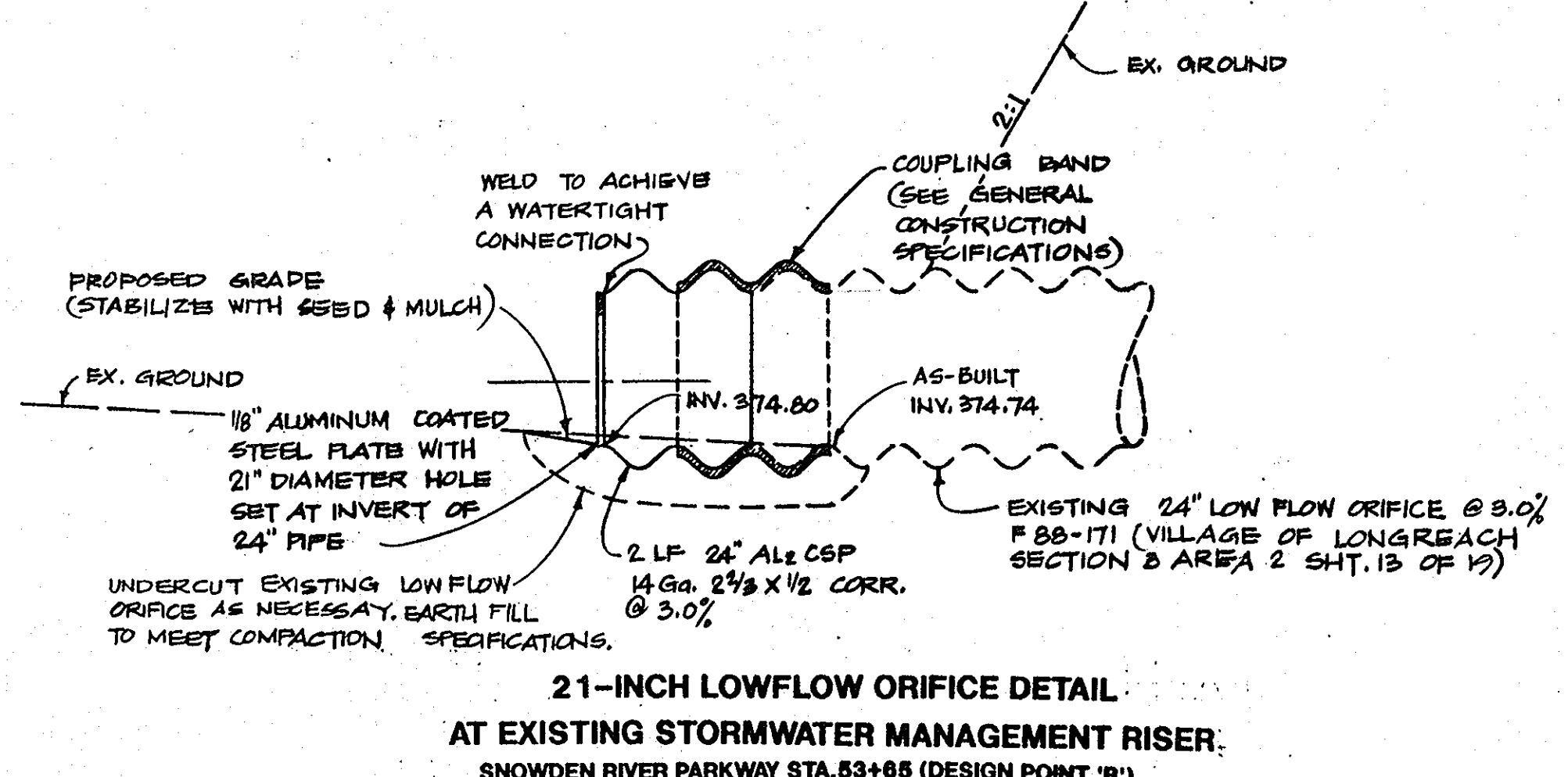
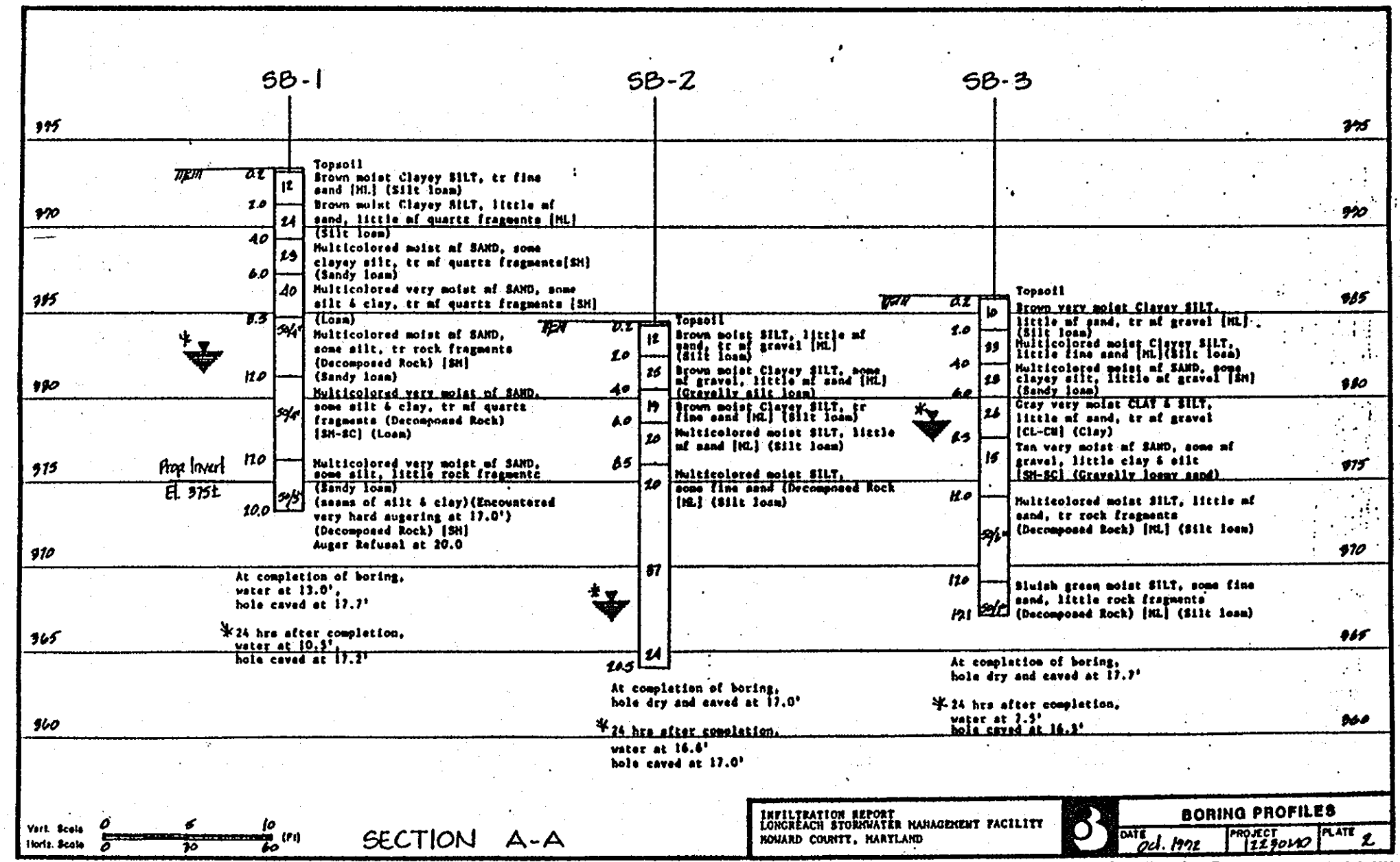
4. STRUCTURAL BACKFILL
Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed 4 inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than 4 feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24 inches or greater over the structure or pipe.

5. REMOVAL AND REPLACEMENT OF DEFECTIVE FILL
Fill placed at densities lower than specified minimum density or at moisture contents outside the specified acceptable range of moisture content or otherwise not conforming to the requirements of the specifications shall be removed to meet the requirements or removed and replaced by acceptable fill. The bottoms of such excavations shall be finished flat or gently curving and at the sides of such excavations the adjacent sound fill shall be trimmed to a slope not steeper than 3 feet horizontally to 1 foot vertically extending from the bottom of the excavation to the fill surface.

6. PIPE CONDUITS
All pipes shall be circular in cross section. All perforated pipe shall have a minimum of 3.31 square inches of opening per square foot of pipe surface (ex. 3/8 inch holes per square foot). Perforations are to be uniformly spaced around the full periphery of the pipe. Any holes blocked or partially blocked by bituminous coating shall be opened prior to installation.

CORRUGATED METAL PIPE All of the following criteria shall apply for corrugated metal pipe:
Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-274 with watertight coupling bands or flanges. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.
2. Coupling bands, anti-seep collars, and sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.
3. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.
All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24 inches in diameter: Flanges on both ends of the pipe, a 12 inch wide standard lap type band with 12 inch wide by 3/8 inch thick closed cell circular neoprene gasket and a 12 inch wide hugger type band with O-ring gaskets having a minimum diameter of 1/2 inch greater than the corrugation depth. Pipes 24 inches in diameter and larger shall be connected by a 24 inch long annular corrugated band using rods and lugs. A 12 inch wide by 3/8 inch thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24 inches. Helically corrugated pipe shall have either continuously welded seams or have lock seams.
4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
5. Backfilling shall conform to "Structural Backfill".
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

ROCK RIP-RAP
Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 905.
The rip-rap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the rip-rap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth shall be placed under all rip-rap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 919.12.
CARE OF WATER DURING CONSTRUCTION
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the area to be occupied by the permanent works. The contractor shall also furnish, install, operate, and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extent required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom of required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may require draining the water to sumps from which the water shall be pumped.
STABILIZATION
All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.
EROSION AND SEDIMENT CONTROL
Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures to be employed during the construction process.
All disturbed areas shall be controlled by an Erosion and Sediment Control Plan which has been approved by the Howard County Soil Conservation District (H.C.S.C.D.).
SEEDING
Seeding, fertilizing and mulching shall be as follows:
Seed Mix: 70% Forager Tall Fescue
30% Chemung Crownvetch, Inoculated
Applied at a rate of 55 lbs. per acre.
Optimum seeding dates: March 1 to April 30.
Lime: 2 tons/acre Dolomitic Limestone.
Fertilizer: 600 lbs./acre 10-10-10 fertilizer before seeding,
400 lbs./acre 30-0-0 ureaform fertilizer at time of seeding.
Mulch: Straw at 4,000 lbs. per acre.
Anchoring: Mulching tool or emulsified asphalt binder at a rate of 8 gal. per 1,000 square feet.
FILTER CLOTH
All filter cloth shall conform to Mirlit 140N, Dupont Typer 3341 or 3401, Supac 5P or approved equal.
CONSTRUCTION INSPECTION BY DESIGNATED ENGINEERS
The construction of the pond and embankment, and certification that the pond and embankment have been built in accordance with the plans shall be under the supervision of a Registered Professional Engineer. The Engineer shall be notified sufficiently in advance of construction in order that arrangements can be made for (1) inspection of pipe trench and bedding, (2) inspection of riser and anti-seep collars and (3) supervision of embankment construction and compaction testing. The Engineer shall direct the handling of water during construction, minor changes not affecting the integrity of the dam in order to compensate for unusual soil conditions, and the removal and replacement of defective fill.



Developer Certification
"We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and shall engage a registered professional engineer to supervise on-site inspections by the Howard Soil Conservation District."
Signature of Developer: *Caitleen Conley Young* Date: 2/20/94
Caitleen Conley Young
First Name
Last Name

Engineer Certification
"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and shall engage a registered professional engineer to supervise on-site inspections by the Howard Soil Conservation District."
Signature of Engineer: *LARRY W. LAURANCE* P.E. No. 16998 Date: 1/2/94
LARRY W. LAURANCE
First Name
Last Name

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for erosion and sediment control and sediment control.
Signature: *J.C. Campbell* Date: 2/1/94
J.C. Campbell
Howard Soil Conservation District

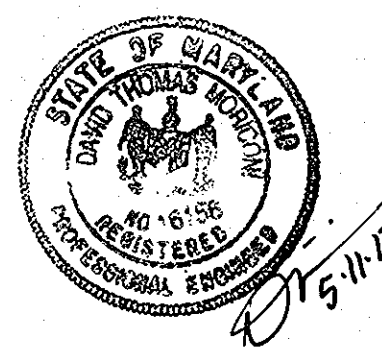
These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
Signature: *John H. ...* Date: 2/1/94
Howard Soil Conservation District

As-Built Certification
I hereby certify that the facility shown on this plan was constructed as shown on the as-built plans and meets the approved plans and specifications.
Signature: _____ P.E. No. _____
First Name _____ Date _____

Certify means to state or declare a professional opinion based upon on-site inspections and material tests are conducted during construction. The on-site inspections and material tests are those inspections and tests deemed sufficient and appropriate by commonly accepted engineering standards. Certify does not mean or imply a guarantee by the engineer nor does an engineer's certification relieve any other party from meeting requirements imposed by contract, employment, or other means, including meeting commonly accepted industry practices.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<i>John M. ...</i>	6-23-94
COUNTY HEALTH OFFICER		DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>...</i>	6/29/94
DIRECTOR		DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>...</i>	6/28/94
DIRECTOR		DATE
CHIEF, LAND DEVELOPMENT & RESEARCH, J.A.		DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>...</i>	6/20/94
DIRECTOR		DATE
CHIEF, BUREAU OF ENGINEERING		DATE
5-20-93	REVISION NO. 1 - CHANGE SHEET NO.	
Date	No.	Revision Description



SEAL APPLIES TO REVISION REVISION 1

5-10-94
Date
Professional Engr. No. 16998

EASTERN HIGH SCHOOL
OWNER /DEVELOPER:
HOWARD COUNTY SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Dan McQuinn & Walters, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
410-282-3535
Fax 410-282-4705
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
LONGREACH	SEC. 3 / AREA 2	99 / 657
WATER CODE	E 06	SEWER CODE 3530000
TITLE	STORMWATER MANAGEMENT 91 MARCH 94 DETAILS	
Des By	JMG	Scale AS SHOWN
Om By	JMG	Date 1-12-94
Chk By	EIS	Approved
Proj. No.	92087A	
16 OF 32 24		

**BID ALTERNATE NO. 1:
DOBBIN ROAD SEDIMENT AND
EROSION CONTROL**

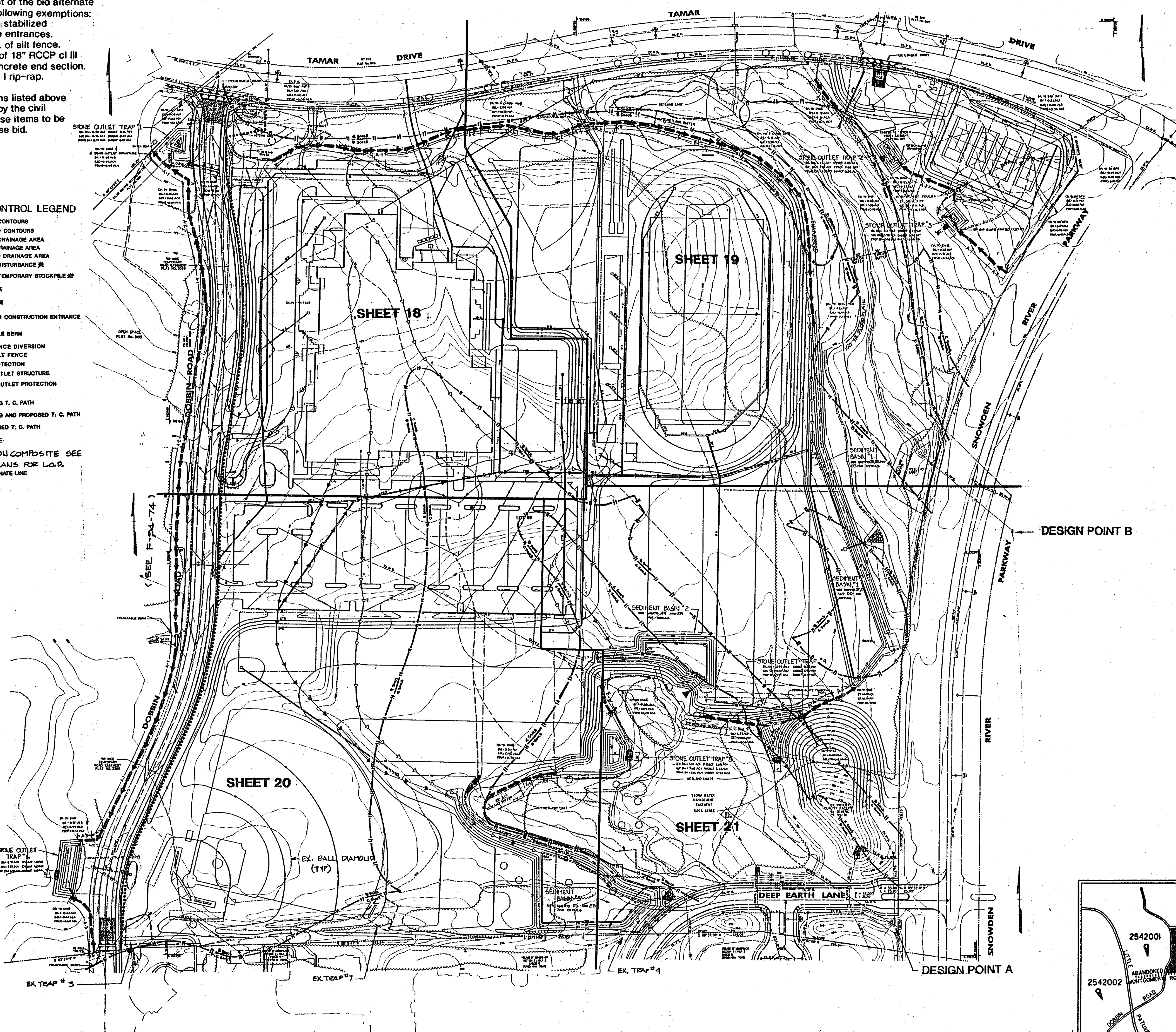
Sediment and erosion control measures west of the bid alternate line with the following exemptions:

1. Exclude two stabilized construction entrances.
2. Add 1360 lf. of silt fence.
3. Add 120 lf. of 18" RCCP cl III pipe and concrete end section.
4. Add 1 c.y. cl I rip-rap.

Exempted items listed above to be located by the civil engineer. These items to be included in base bid.

SEDIMENT CONTROL LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING DRAINAGE AREA
- INTERIM DRAINAGE AREA
- PROPOSED DRAINAGE AREA
- LIMIT OF DISTURBANCE
- LIMIT OF TEMPORARY STOCKPILE
- SILT FENCE
- EARTH DIKE
- STABILIZED CONSTRUCTION ENTRANCE
- MOUNTABLE BERM
- SUPER FENCE DIVERSION
- SUPER SILT FENCE
- INLET PROTECTION
- STONE OUTLET STRUCTURE
- RIP-RAP OUTLET PROTECTION
- BAFFLE
- EXISTING T. C. PATH
- EXISTING AND PROPOSED T. C. PATH
- PROPOSED T. C. PATH
- SOILS LINE
- * NOT SHOWN ON COMPOSITE SEE 40 SCALE PLANS FOR L.O.P.
- ***** BID ALTERNATE LINE



NOTE

The grading and construction of the school site and the reconstruction of Dobbin Road have been shown as one integrated operation. The contractor selected for the project will be responsible for the construction of both phases; however, in order to determine a cost of the Dobbin Road improvements that will be used by the school system in their negotiations with others, a bid alternate line has been drawn approximately along the westerly right-of-way line of the proposed reconstructed Dobbin Road. Work west of this line will be bid as Bid Alternate No. 1. Listed on this sheet is a list of construction items to be excluded or added to the bid alternate because of the separation of work. The eastern curb and gutter line of the reconstructed Dobbin Road is approximately the break line for drainage between the school site and the road construction. This easily facilitates separating the two phases for bidding. Also, the entire sediment and erosion control installation that serves the disturbed road area is located west of the road (Stone Outlet Traps #1 & #6). There are two cross-culverts that will also be replaced and improved. These two culverts are shown in the Bid Alternate No. 1 area.

Due to the requirement for public road plan approval for Dobbin Road, a set of public road plans has been prepared (F-94-74). This shows the Dobbin Road work as a separate project regardless of the fact that it will be integrated into the overall construction scheme. In order to meet the requirements of the public road approval process, this and other sheets of this SDP set have been included in plan F-94-74 as reference drawings. The amended scope of construction items in the Bid Alternate No. 1 list would allow the Dobbin Road construction operations to "stand alone". It specifies the exclusion of two stabilized construction entrances which would have been at two of the proposed driveway locations into the high school site. Under the bid alternate, those entrances would be part of the school work (Bid Package 2A). The list includes silt fence which would run the length of the eastern side of Dobbin Road which would provide erosion control until the grading of the road directed the surface flow of water into the stone outlet traps. The list also includes a length of storm drain pipe and some rip rap for outlet protection. This pipe would provide a stabilized outlet for the drainage from the in-road storm drain inlets located between the two southern-most driveway entrances into the school. If the road construction precedes the site construction, this will provide an outlet for that drainage until the on-site drainage system is completed.

The sediment and erosion control measures needed for the school construction are all located east and southeast of the proposed building. In a series of sediment traps and basins. It is not dependent on any construction related to the Dobbin Road work.

DEVELOPERS CERTIFICATION
I/We certify that development and construction will be done according to this plan and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a Department of the Environment approved Training Program for the Control of Sediment and Erosion before beginning the project. Also authorize periodic on-site inspection by the Howard Soil Conservation District.
Cathleen Conley Young 2/28/94
CATHLEEN CONLEY YOUNG Date

ENGINEER'S CERTIFICATION
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Larry W. Waller 1-12-94
LARRY W. WALLER Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.
J.C. Campbell 6/19/94
J.C. CAMPBELL Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
Steph... 6/19/94
Howard Soil Conservation District Date

**APPROVED
PLANNING BOARD
OF HOWARD COUNTY**
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

John M. Boyd, M.D., M.P.H. 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James R. Smith 6/29/94
DIRECTOR DATE
Uma Summerville 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James P. Sch... 6/21/94
DIRECTOR DATE
Charles S. ... 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

Date	No.	Revision Description
5-20-93	1	REDLINE REVISION NO. 1 - CHANGED SHEET NO.

EASTERN HIGH SCHOOL

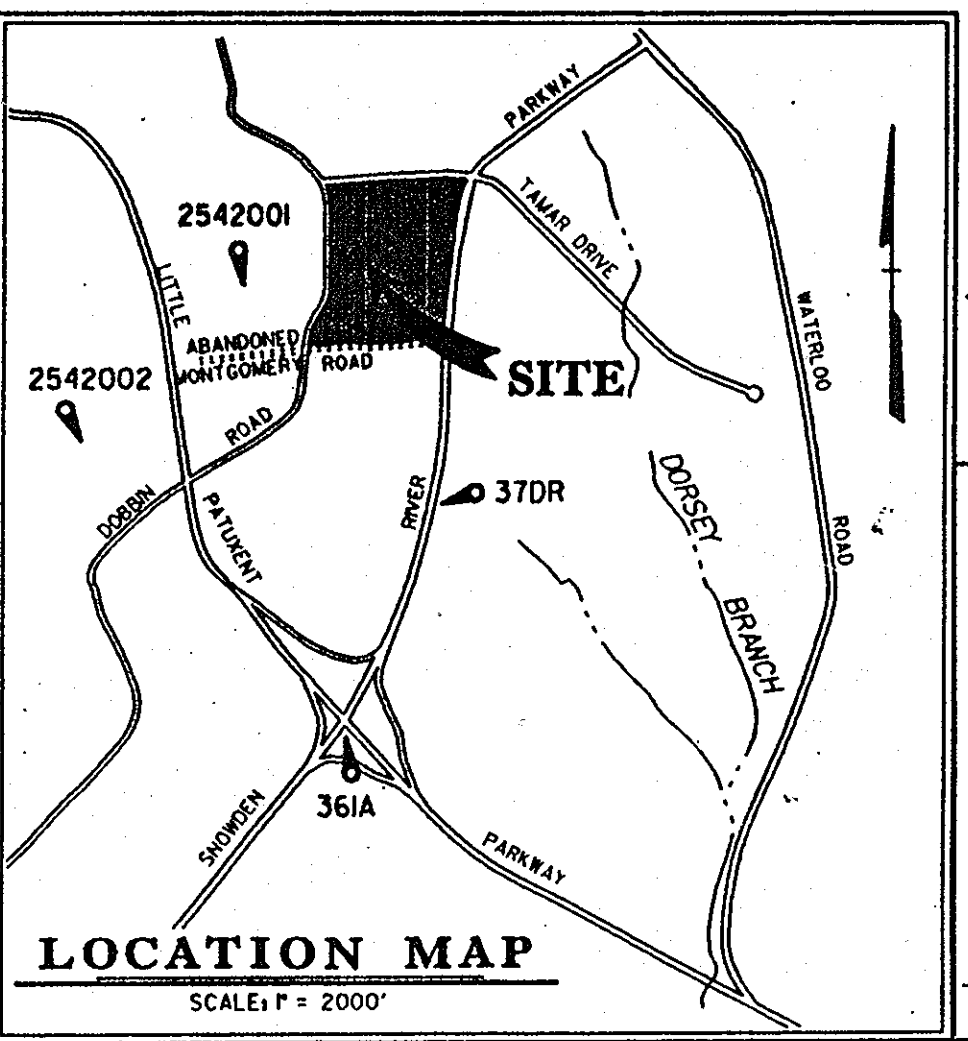
OWNER / DEVELOPER:
HOWARD COUNTY SCHOOL SYSTEM
10910 RT. 108
ELLICOTT CITY, MARYLAND 21042-6198

DMW
Duff McConnaughy Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 286-3333
Fax 296-4706
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION NAME	SECTION/AREA	SEC 3 / AREA 2	LOT/PARCEL #
VILLAGE OF LONGREACH			93/657
PLAT OF L.O.P. 11/20/79	7/17	61H	6067 03
WATER CODE	E 06	SERIAL CODE	3530000

**TITLE
SEDIMENT AND EROSION CONTROL
COMPOSITE GRADING PLAN**

Des By	CRW	Scale	1" = 100'	Proj. No.	92087A
Dwn By	CRW	Date	1-12-94		
Chk By	Approved				17 OF 32 34



SEAL APPLIES TO
REDLINE REVISION
NO. 1
5-10-94
Date

Professional Engr. No. 6498

BENCHMARK
DESCRIPTION
STATION 2542001 (CONCRETE MONUMENT)
ELEV. 426.9711 (FOR VERTICAL CONTROL ONLY)
STATION IS LOCATED ON BG&E TRANSMISSION
LINE 1060' S.W. OF DOBBIN ROAD

BENCHMARK
DESCRIPTION
STATION 37DR (1/4" REBAR)
N169881794, E416566.7155 (FOR HORIZONTAL CONTROL ONLY)
STATION IS LOCATED 0.45+ MILES NORTH OF RTE. 175
AND 46'+ EAST OF THE EAST CURB OF SNOWDEN RIVER PARKWAY

BENCHMARK
DESCRIPTION
STATION 2542002 (CONCRETE MONUMENT)
ELEV. 363.638 (FOR VERTICAL CONTROL ONLY)
STATION IS LOCATED 1000' WEST OF RTE. 175
ON TRANSMISSION LINE AT G. & E. TURN 19-E
NEAR HANOVERS RESTAURANT ENTRANCE

BENCHMARK
DESCRIPTION
STATION 361A (CONCRETE MONUMENT)
N169205.9263, E.416313.589 (FOR HORIZONTAL CONTROL ONLY)
STATION IS LOCATED AT THE SOUTHEAST CORNER OF THE
INTERSECTION OF SNOWDEN RIVER PARKWAY AND RTE. 175
3/4 FROM CURB AND 5.7+ FROM GUARDRAIL END

DRAINAGE AREAS IN THIS AREA FROM SDP FOR
LONGREACH PARCELS B AND C

Proposed sediment basin #3 and sediment trap #6 were sized hydraulically to handle upstream area which includes areas incident to existing sediment traps #3, #4 and #7 built for the adjacent Longreach Development. Existing trap #4 can be removed during construction of sediment basin #3. Once proposed sediment basin #3 and sediment trap #6 are constructed, existing sediment traps #3 and #7 can be removed. Construction of sediment trap #6 and removal of sediment trap #3 are included in BID ALTERNATE #1. All other work indicated in this paragraph to be included in BASE BID.

SEE UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL (SHEET 20 OF 32) FOR WATER MAIN CONSTRUCTION.

Trap Specification Table

Trap Number	1
Trap Type	ST X
Existing Drainage Area Ac.	0.40
Interim Drainage Area Ac.	0.75
Proposed Drainage Area Ac.	0.75
Storage Required C.F.	1.330
Storage Provided C.F.	1.800
Top Embankment Elevation	421.0
Crest Elevation	419.0
Existing Ground Elevation	419.0
Cleanout Elevation	416.0
Bottom Elevation	414.0
Outlet Width (ft)	5'
Bottom Dimension	12'x15'
Trap Depth	4'
Barrel Diameter	-
Riser Diameter	-
TRAP SLOPES	2:1

SEDIMENT CONTROL LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING DRAINAGE AREA
- INTERIM DRAINAGE AREA
- PROPOSED DRAINAGE AREA
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE
- BILT FENCE
- EARTH DIKE
- STABILIZED CONSTRUCTION ENTRANCE
- MOUNTABLE BERM
- INLET PROTECTION
- STONE OUTLET STRUCTURE
- EXISTING T. G. PATH
- PROPOSED T. G. PATH
- SOILS LINE
- BID ALTERNATE LINE
- TREE PROTECTION FENCE

**BID ALTERNATE NO. 1:
DOBBIN ROAD SEDIMENT AND
EROSION CONTROL**

Sediment and erosion control measures west of the bid alternate line with the following exemptions:
 1. Exclude two stabilized construction entrances.
 2. Add 1360 l.f. of silt fence.
 3. Add 120 l.f. of 18" RCCP cl III pipe and concrete end section.
 4. Add 1 c.y. cl I rip-rap.

Exempted items listed above to be located by the civil engineer. These items to be included in base bid.

DEVELOPER CERTIFICATION
 I/We certify that development and construction will be done according to this plan and that any possible non-compliance in the construction process will be a violation of the provisions of a Department of the Environment approved Trenching Program for the control of sediment and erosion before beginning the project. I/we authorize periodic on-site inspection by the Howard Soil Conservation District.

Cathleen Conley Young 1/28/94
 Date

ENGINEER'S CERTIFICATION
 I/We certify that this plan for erosion and sediment control represents a professional opinion for the project and that it meets the requirements of the Howard Soil Conservation District.

Larry W. Wallace 1/28/94
 Date

Larry W. Wallace 6/10/94
 Date

J.C. Campbell 6/10/94
 Date

This Development Plan is approved for Sediment and Erosion Control by the Howard Soil Conservation District.

[Signature] 6/10/94
 Date

STONE OUTLET TRAP

EX. DA = 0.40 ACA DIRECT 0.16 ACA
 INT. DA = 0.76 ACA DIRECT 0.27 ACA
 PROP. DA = 0.75 ACA DIRECT 0.27 ACA

DA TO DIKE
 G STONE OUTLET STRUCTURE
 EX. = 0.64 ACA
 INT. = 0.64 ACA
 PROP. = 0.64 ACA

EXISTING 48" CALIPER BEECH TREE. CONTRACTOR TO INSTALL BLAZE ORANGE SAFETY FENCE AND SNOW FENCE AROUND BEECH TREE AS DIRECTED BY THE ENGINEER. SEE SHEET 27 FOR DETAIL OF TREE PROTECTION FENCE. OPEN SPACE ERECT SIGNS PROHIBITING ANY VEHICULAR OR PEDESTRIAN TRAFFIC WITHIN FENCED AREA. PRIOR TO GRADING, ROOT PRUNE APPROXIMATELY 3 FEET BEHIND EXISTING ROAD SHOULDER FOR THE ENTIRE PORTION OF ROADWAY LENGTH UNDER THE CROWN DRIP LINE. PROPOSED GRADING SHALL EXTEND NO CLOSER THAN 22 FEET +/- TO THE EASTERN SIDE OF THE TRUNK. KILL OFF EXISTING TALL FESCUE GRASSES WITHIN TREE DRIP LINE. CORE AERATE BY HAND METHODS THE TREE ROOT ZONE IMPACTED BY THE FESCUE TURF. MULCH AREA UNDER DRIP LINE WITH WELL COMPOSTED HARDWOOD MULCH. ANY DISTURBANCE OR DAMAGE TO TREE IS TO BE REPORTED TO THE ENGINEER IMMEDIATELY UPON NOTICE.

NOTE:

The grading and construction of the school site and the reconstruction of Dobbin Road have been shown as one integrated operation. The contractor selected for the project will be responsible for the construction of both phases; however, in order to determine a cost of the Dobbin Road improvements that will be used by the school system in their negotiations with others, a bid alternate line has been drawn approximately along the easterly right-of-way line of the proposed reconstructed Dobbin Road. Work west of this line will be bid as Bid Alternate No. 1. Listed on this sheet is a list of construction items to be excluded or added to the bid alternate because of the separation of work. The eastern curb and gutter line of the reconstructed Dobbin Road is approximately the break line for drainage between the school site and the road construction. This easily facilitates separating the two phases for bidding. Also, the entire sediment and erosion control installation that serves the disturbed road area is located west of the road (Stone Outlet Traps #1 & #6). There are two cross-culverts that will also be replaced and improved. These two culverts are shown in the Bid Alternate No. 1 area.

Due to the requirement for public road plan approval for Dobbin Road, a set of public road plans has been prepared (F-94-74). This shows the Dobbin Road work as a separate project regardless of the fact that it will be integrated into the overall construction scheme. In order to meet the requirements of the public road approval process, this and other sheets of this SDP set have been included in plan F-94-74 as reference drawings. The amended scope of construction items in the Bid Alternate No. 1 list would allow the Dobbin Road construction operations to 'stand alone'. It specifies the exclusion of two stabilized construction entrances which would have been at two of the proposed driveway locations into the high school site. Under the bid alternate, those entrances would be part of the school work (Bid #202046-2A1). The list includes silt fence which would run the length of the eastern side of Dobbin Road which would provide erosion control until the grading of the road directed the surface flow of water into the stone outlet traps. The list also includes a length of storm drain pipe and some rip rap for outlet protection. This pipe would provide a stabilized outlet for the drainage from the in-road storm drain inlets located between the two southern-most driveway entrances into the school. If the road construction precedes the site construction, this will provide an outlet for that drainage until the on-site drainage system is completed.

The sediment and erosion control measures needed for the school construction are all located east and southeast of the proposed building. In a series of sediment traps and basins. It is not dependent on any construction related to the Dobbin Road work.

**APPROVED
PLANNING BOARD
OF HOWARD COUNTY**
 DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

[Signature] 6-23-94
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 6/29/94
 DIRECTOR DATE
[Signature] 6/28/94
 CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[Signature] 6/21/94
 DIRECTOR DATE
[Signature] 6/20/94
 CHIEF, BUREAU OF ENGINEERING DATE

Date	No.	REVISION REVISION NO. 1 - CHANGED SHEET NO.	Revision Description
------	-----	---	----------------------

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RT.108
 ELLICOTT CITY, MARYLAND 21042-6198

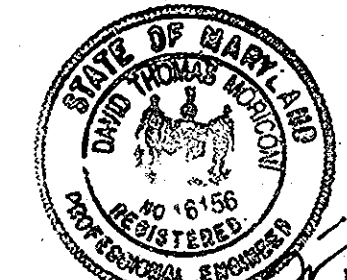
DMW
 Darl McConna-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 286-3333
 Fax 286-4706

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

SUBDIVISION NAME	VILLAGE OF LONGREACH	SECTION/AREA	SEC 3 / AREA 2	LOT/PARCEL #	93/657
PLAT OF LOT/BLOCK	11280-73	TAX ZONE MAP	36	ELECT. DISTRICT	6TH
WATER CODE	E.06	SEWER CODE	3530000	CENSUS TRACT	6067.03

TITLE: SEDIMENT AND EROSION CONTROL PLAN

Des By CRW Scale 1" = 40' Proj. No. 92087A
 Dwn By CRW Date 1-12-94
 Chk By Approved



5-16-94
 Date



Professional Engr. No. 16498

18 OF 32 3A

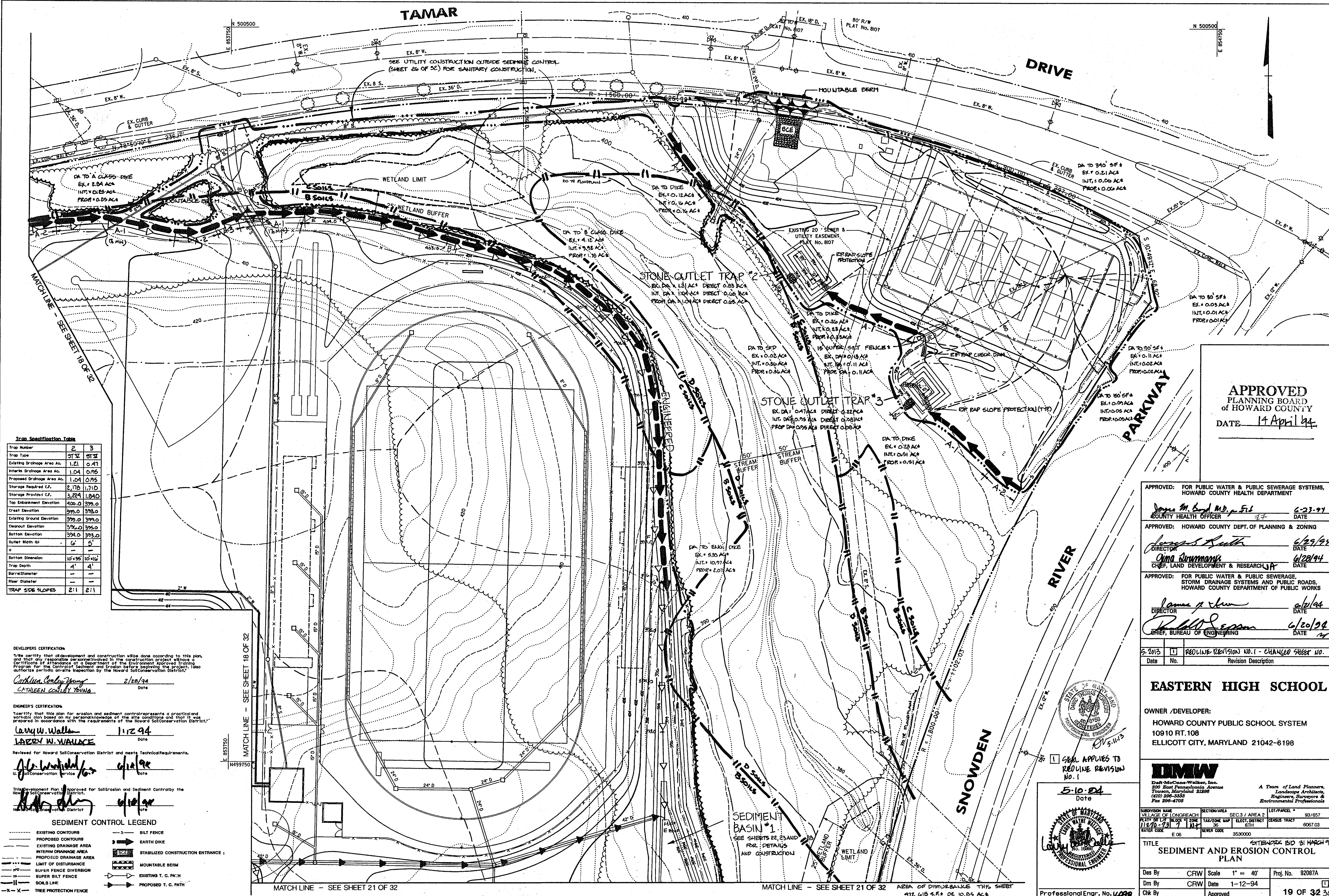
TAMAR

DRIVE

PARKWAY

RIVER

SNOWDEN



Trap Specification Table

Trap Number	2	3
Trap Type	ST	ST
Existing Drainage Area Ac.	1.21	0.41
Interic Drainage Area Ac.	1.04	0.95
Proposed Drainage Area Ac.	1.04	0.95
Storage Required CF	2,170	1,710
Storage Provided CF	3,224	1,840
Top Embankment Elevation	400.0	399.0
Crest Elevation	399.0	398.0
Existing Ground Elevation	399.0	399.0
Cleanout Elevation	399.0	399.0
Bottom Elevation	394.0	393.0
Outlet Width ft	6'	5'
Bottom Dimension	10' x 36'	10' x 16'
Trap Depth	4'	4'
Barral Diameter	-	-
Riser Diameter	-	-
TRAP SIDE SLOPES	2:1	2:1

DEVELOPERS CERTIFICATION:
 I/We certify that all development and construction will be done according to this plan, and that only responsible personnel involved in the construction project will have a Certificate of Attendance of a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I/We authorize periodic on-site inspection by the Howard Soil Conservation District.

Cathleen Conley Young 2/20/94
 CATHLEEN CONLEY YOUNG Date

ENGINEER'S CERTIFICATION:
 I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Larry W. Wallace 1/12/94
 LARRY W. WALLACE Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.
John W. Wallace 4/14/94
 U. Soil Conservation Service Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
John W. Wallace 4/14/94
 U. Soil Conservation District Date

- SEDIMENT CONTROL LEGEND**
- EXISTING CONTOURS
 - PROPOSED CONTOURS
 - EXISTING DRAINAGE AREA
 - INTERIC DRAINAGE AREA
 - PROPOSED DRAINAGE AREA
 - LIMIT OF DISTURBANCE
 - SUPER FENCE DIVERSION
 - SUPER SILT FENCE
 - SOLB LINE
 - TREE PROTECTION FENCE
 - SILT FENCE
 - EARTH DIKE
 - STABILIZED CONSTRUCTION ENTRANCE
 - MOUNTABLE BERM
 - EXISTING T. C. PATH
 - PROPOSED T. C. PATH

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
 HOWARD COUNTY HEALTH DEPARTMENT

James M. Boyd, M.D., p. 512 6-23-94
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James Smith 6/25/94
 DIRECTOR DATE

Chia Strumman 6/20/94
 CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
 STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James P. Shaw 6/16/94
 DIRECTOR DATE

Paul S. Sorenson 6/20/94
 CHIEF, BUREAU OF ENGINEERING DATE

2-2013 REDLINE REVISION NO. 1 - CHANGED SHEET NO.
 Date No. Revision Description

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 10910 RT. 108
 ELLICOTT CITY, MARYLAND 21042-6198

DMW
 Draft-McCune-Walker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax 296-4706

A Team of Land Planners,
 Landscape Architects,
 Engineers, Surveyors &
 Environmental Professionals

SUBDIVISION NAME: VILLAGE OF LONGBEACH
 LOT/BLK: 11270-731 7 1 M
 SECTION: 36
 TAX/ZONE MAP: 614
 ELEC. DISTRICT: 614
 CENSUS TRACT: 6067 03
 WATER CODE: E 06
 SEWER CODE: 3530000

TITLE: SEDIMENT AND EROSION CONTROL PLAN
 DATE: 5-10-94
 Des By: CRW Scale: 1" = 40'
 Dwn By: CRW Date: 1-12-94
 Chk By: Approved

Professional Engr. No. 4498

Trap Specification Table

Trap Number	6
Trap Type	ST V
Existing Drainage Area Ac.	2.71
Interim Drainage Area Ac.	3.29
Proposed Drainage Area Ac.	2.49
Storage Required C.F.	5.922
Storage Provided C.F.	6.689
Top Embankment Elevation	404.0
Crest Elevation	403.0
Existing Ground Elevation	403.0
Cleanout Elevation	400.0
Bottom Elevation	398.0
Outlet Width (b)	14"
a	—
Bottom Dimension	12 x 7.5
Trap Depth	4"
Barrel Diameter	—
Riser Diameter	—
TRAP SIDELAPES	2:1

NOTE:

The grading and construction of the school site and the reconstruction of Dobbin Road have been shown as one integrated operation. The contractor selected for the project will be responsible for the construction of both phases however, in order to determine a cost of the Dobbin Road improvements that will be used by the school system in their negotiations with others, a bid alternate line has been drawn approximately along the centerline of the proposed reconstructed Dobbin Road. Work west of this line will be bid as Bid Alternate No. 1. Listed on this sheet is a list of construction items to be included or added to the bid alternate because of the separation of roads. The eastern curb and gutter line of the reconstructed Dobbin Road is approximately the break line for drainage between the school site and the road construction. This utility facilities separating the two phases for bidding. Also, the entire sediment and erosion control installation that serves the disturbed road area is located west of the road (Stone Outlet Trap # 6 & 8). These are two construction items that will also be replaced and improved. These two contracts are shown in the Bid Alternate No. 1 area.

Due to the requirement for public road plan approval for Dobbin Road, a set of public road plans has been prepared (P-94-74). This shows the Dobbin Road work as a separate project regardless of the fact that it will be integrated into the overall construction scheme. In order to meet the requirements of the public road approval process, this set of sheets of this SDP will be included in plan P-94-74 as reference drawings. The enclosed scope of construction items in the Bid Alternate No. 1 list would allow the Dobbin Road construction operations to "stand alone". It specifies the location of any additional construction entrances which would have been at two of the proposed driveway locations near the high school site. Under the bid alternate, these entrances would be part of the school work (Old Trap # 12A). The list includes silt fence which would run the length of the eastern side of Dobbin Road which would provide erosion control until the grading of the road directed the surface flow of water into the stone traps. The list also includes a length of stream drain pipe and some silt trap for outlet protection. This pipe would provide a additional outlet for the drainage from the school site (stone outlet table located between the two sediment-trap driveway entrances into the school. If the road construction precedes the site construction, this will provide an outlet for that drainage until the on-site drainage system is completed.

The sediment and erosion control measures needed for the school construction are all located east and southeast of the proposed building, in a series of sediment traps and basins. It is not dependent on any construction related to the Dobbin Road work.

SEDIMENT CONTROL LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- EXISTING DRAINAGE AREA
- INTERIM DRAINAGE AREA
- PROPOSED DRAINAGE AREA
- LIMIT OF DISTURBANCE
- LIMIT OF TEMPORARY STOCKPILE
- SILT FENCE
- EARTH DIKE
- STABILIZED CONSTRUCTION ENTRANCE
- MOUNTABLE BERM
- EXISTING T. G. PATH
- EXISTING AND PROPOSED T. G. PATH
- PROPOSED T. G. PATH
- SOLI LINE
- BID ALTERNATE LINE
- TREE PROTECTION FENCE

BID ALTERNATE NO. 1: DOBBIN ROAD SEDIMENT AND EROSION CONTROL

- Sediment and erosion control measures west of the bid alternate line with the following exemptions:
- Exclude two stabilized construction entrances.
 - Add 1360 l.f. of silt fence.
 - Add 120 l.f. of 18" RCCP cl III pipe and concrete end section.
 - Add 1 c.y. of rip-rap.

Exempted items listed above to be located by the civil engineer. These items to be included in base bid.

STONE OUTLET TRAP # 6

EX. DA: 2.71 AC± DIRECT 1.17 AC±
INT. DA: 3.29 AC± DIRECT 1.67 AC±
PROP. DA: 2.49 AC± DIRECT 1.26 AC±

DA TO DIKE
EX. = 0.67 AC±
INT. = 0.61 AC±
PROP. = 0.61 AC±



MATCH LINE - SEE SHEET 18 OF 32

MATCH LINE - SEE SHEET 21 OF 32

DEVELOPER'S CERTIFICATION:
I/We certify that development and construction will be done according to this plan and that any reasonable performance involved in the construction project will be a Certificate of Attendance of a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. This authorizes periodic on-site inspection by the Howard Soil Conservation District.

Cathleen Conley Young 2/20/94
CATHLEEN CONLEY YOUNG Date

ENGINEER'S CERTIFICATION:
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Larry W. Wallace 1-12-94
LARRY W. WALLACE Date

Reviewed for Howard Soil Conservation District and Meets Technical Requirements.
D. Calverley 6/14/94
UP Soil Conservation Service Date

This Development Plan is Approved for Sedimentation and Sediment Control by the Howard Soil Conservation District.
[Signature] 6/14/94
Howard Soil Conservation District Date

5-10-94
Date

SEAL APPLIES TO REOLINE
REVISION NO. 1

Professional Engr. No. 6698

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

James M. Boyd 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James M. Boyd 6/29/94
DIRECTOR DATE

Ann Sauerborn 6/29/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James M. Boyd 6/21/94
DIRECTOR DATE

Richard Egan 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

5-2013 REOLINE REVISION NO. 1 - CHANGED SHEET NO.
Date No. Revision Description

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042-8198

DMW
Duff McQuinn Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 286-3333
Fax: 286-4708

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION NAME: VILLAGE OF LONGREACH
SECTION / AREA: SEC 3 / AREA 2
PLAT OR LTR. BLOCK # ZONE: 112.00-137 7 LACT
TAX/ZONE MAP: 35
ELECT. DISTRICT: 51H
CENSUS TRACT: 6067.03
WATER CODE: 06
SEWER CODE: 3530000

TITLE: SEDIMENT AND EROSION CONTROL PLAN
SITE/Parcel BID 21 MARCH 94

Des By: CRW Scale: 1" = 40' Proj. No.: 92087A
Dm By: CRW Date: 1-12-94
Chk By: Approved

20 OF 32 34

MATCH LINE - SEE SHEET 19 OF 32

WEILAND LIMIT MATCH LINE - SEE SHEET 19 OF 32

MATCH LINE - SEE SHEET 20 OF 32

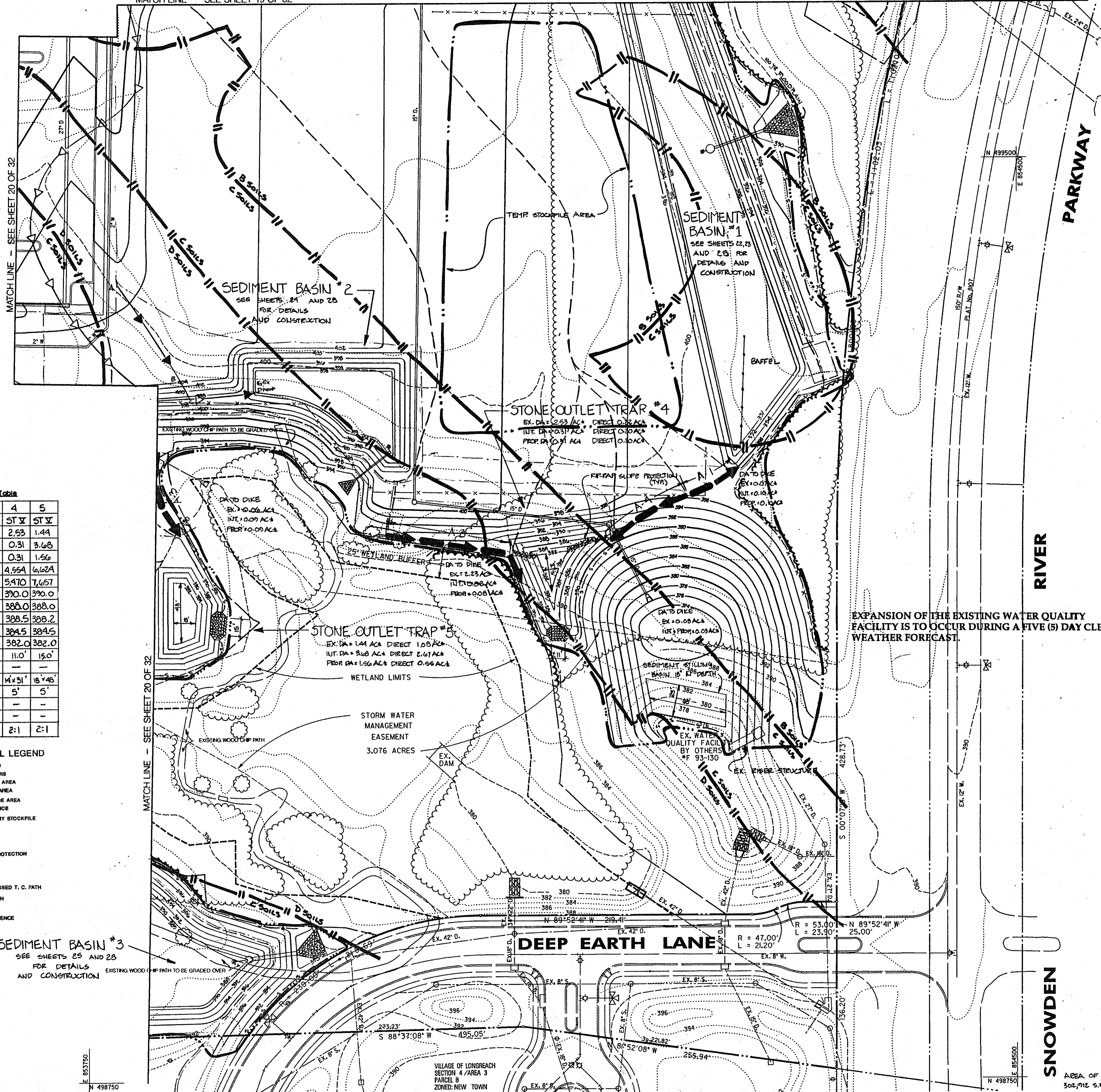
MATCH LINE - SEE SHEET 20 OF 32

Trap Specification Table

Trap Number	4	5
Trap Type	ST V	ST V
Existing Drainage Area Ac.	2.53	1.44
Interim Drainage Area Ac.	0.31	3.68
Proposed Drainage Area Ac.	0.31	1.56
Storage Required CF.	4,554	6,624
Storage Provided CF.	5,470	7,657
Top Embankment Elevation	370.0	370.0
Crest Elevation	388.0	388.0
Existing Ground Elevation	388.5	388.2
Cleanout Elevation	384.5	384.5
Bottom Elevation	382.0	382.0
Outlet Width (ft)	11.0'	15.0'
a	-	-
Bottom Dimension	14' x 31'	18' x 48'
Trap Depth	5'	5'
Barrel Diameter	-	-
Riser Diameter	-	-
TRAP SLOPES	2:1	2:1

- SEDIMENT CONTROL LEGEND**
- - - - - EXISTING CONTOURS
 - — — — — PROPOSED CONTOURS
 - — — — — EXISTING DRAINAGE AREA
 - — — — — INTERIM DRAINAGE AREA
 - — — — — PROPOSED DRAINAGE AREA
 - — — — — LIMIT OF DISTURBANCE
 - — — — — LIMIT OF TEMPORARY STOCKPILE
 - — — — — SILT FENCE
 - — — — — EARTH DIKE
 - — — — — RSP-RAP OUTLET PROTECTION
 - — — — — BAFFLE
 - — — — — EXISTING T. C. PATH
 - — — — — EXISTING AND PROPOSED T. C. PATH
 - — — — — PROPOSED T. C. PATH
 - — — — — SOILS LINE
 - — — — — TREE PROTECTION FENCE

SEDIMENT BASIN #3
SEE SHEETS 25 AND 26
FOR DETAILS
AND CONSTRUCTION



DEVELOPER'S CERTIFICATION
I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project without a Certificate of Attendance of a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I/We authorize periodic on-site inspection by the Howard Soil Conservation District.

Cathleen Conley Young 2/20/94
CATHLEEN CONLEY YOUNG Date

ENGINEER'S CERTIFICATION
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Larry W. Wallace 1-12-94
LARRY W. WALLACE Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.

J.C. Campbell 6/20/94
J.C. CAMPBELL Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

Jeffrey R. King 6/20/94
JEFFREY R. KING Date

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

James M. Hurdman 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James M. Hurdman 6/29/94
DIRECTOR DATE

Chris J. Jaraman 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James J. Hurdman 6/21/94
DIRECTOR DATE

Robert J. Hurdman 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

Date	No.	Revision Description
5-20-93	1	REDLINE REVISION NO. 1 - CHANGED SHEET NO.

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Duff McCreary-Walkers, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 286-3533
Fax 286-4708

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
VILLAGE OF LONGREACH	SEC 3 / AREA 2	93/657
PLAT OR LOT #	TAX/ZONE MAP	ELECT. DISTRICT
11270-73 7 1st	38	6067.03
WATER CODE	SERIES CODE	3530000
E 06		

TITLE: SITEMARK BID 31 MAR 94
SEDIMENT AND EROSION CONTROL PLAN

Des By CRW Scale 1" = 40' Proj. No. 92087A
Dwn By CRW Date 1-12-94
Chk By Approved

Professional Engr. No. 16988

21 OF 32 34



SEAL APPLIES TO REDLINE REVISION NO. 1

5-10-94
Date



RIVER

SNOWDEN

EXPANSION OF THE EXISTING WATER QUALITY FACILITY IS TO OCCUR DURING A FIVE (5) DAY CLEAR WEATHER FORECAST.

AREA OF DISTURBANCE THIS SHEET
302,912 S.F. OR 6.95 AC.

Basin Information Table

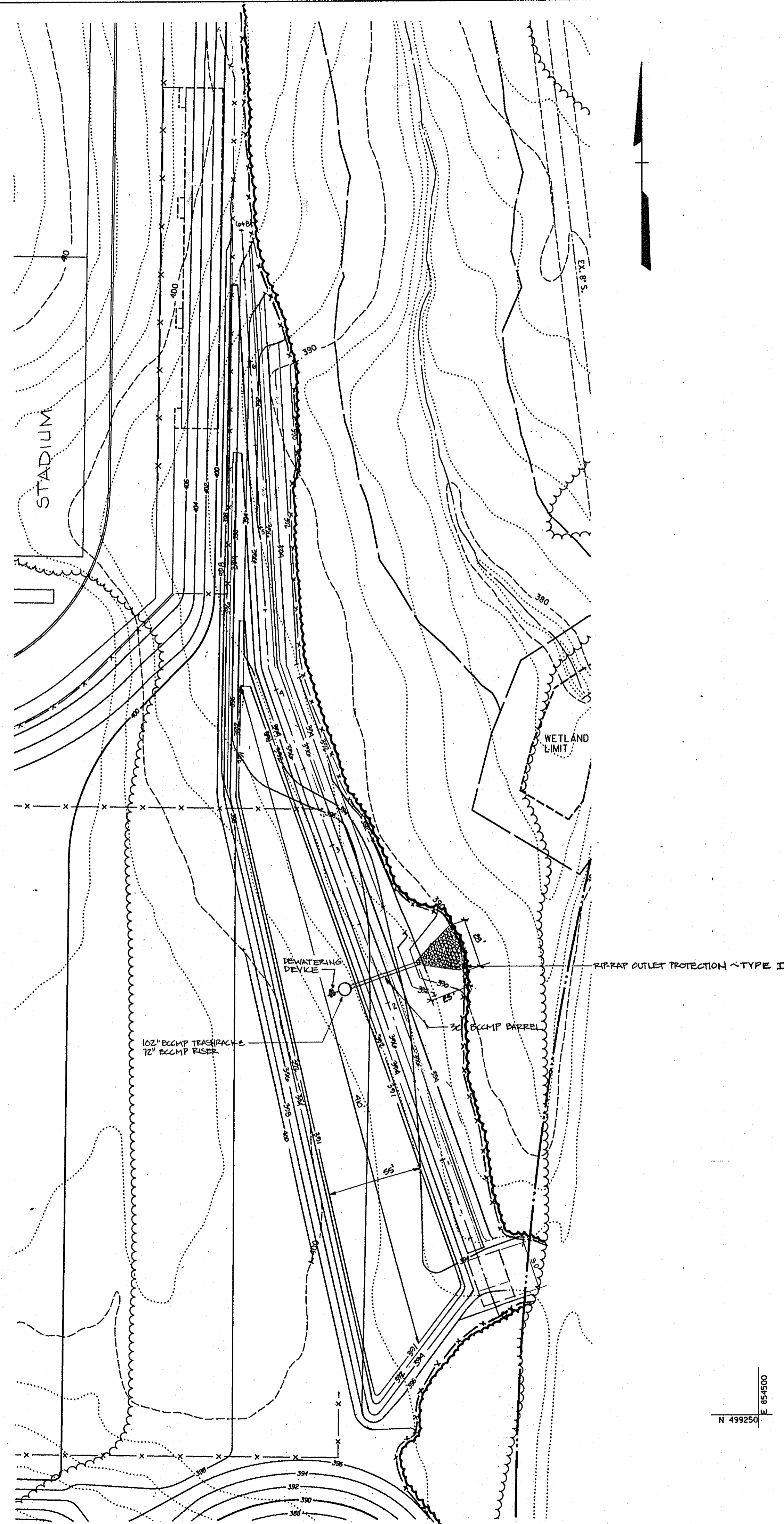
Basin Number	1
Existing Drainage Area Ac.	10.2
Interim Drainage Area Ac.	19.7
Proposed Drainage Area Ac.	24.2
Volume Required C.Y.	1623
Volume Provided C.Y.	1888
Top of Dam Elevation	396.5
Emergency Spillway Elevation	394.5
Riser Crest Elevation	393.5
Cleanout Elevation	392.0
Bottom Elevation	391.0
Q ₁₀ Into Basin C.F.S.	129.49
Q ₁₀ Out Barrel C.F.S.	47.00
Q ₁₀ Out Emergency Spillway C.F.S.	64.48
Design High Water	395.33
Freeboard Provided	1.17'
Riser Diameter	72"
Barrel Diameter	30"
Emergency Spillway Width	20'
Interim SWM Required C.Y.	YES
Interim SWM Provided C.Y. #	YES

2 YEAR SWM IS PROVIDED AT EXISTING ROAD CULVERT/ SWM STRUCTURE

-X-X- TREE PROTECTION FENCE

N 500000
E 854000

N 499250
E 854000



DEVELOPER'S CERTIFICATION
I/We certify that development and construction will be done according to this plan and that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.

Cathleen Conley Young 2/20/94
CATHLEEN CONLEY YOUNG Date

ENGINEER'S CERTIFICATION
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Larry W. Wallace 1-12-94
LARRY W. WALLACE Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.

J.G. Campbell 6/19/94
J.G. CAMPBELL Date

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
[Signature] 6/19/94
Date

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

James M. Boyd III 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James S. Hunter 6/22/94
DIRECTOR DATE
Jim Surumany 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

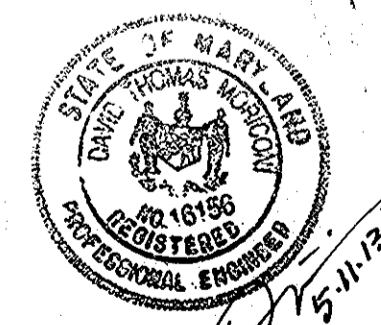
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James J. [Signature] 6/16/94
DIRECTOR DATE
Donald W. [Signature] 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

5-2013	1	REDLINE REVISION NO. 1 - CHANGED SHEET NO.
Date	No.	Revision Description

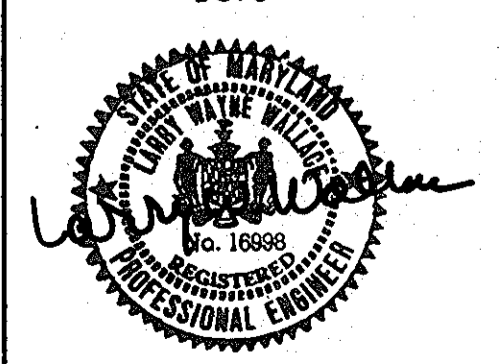
EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042-8198



SEAL APPLIES TO REDLINE REVISION NO. 1

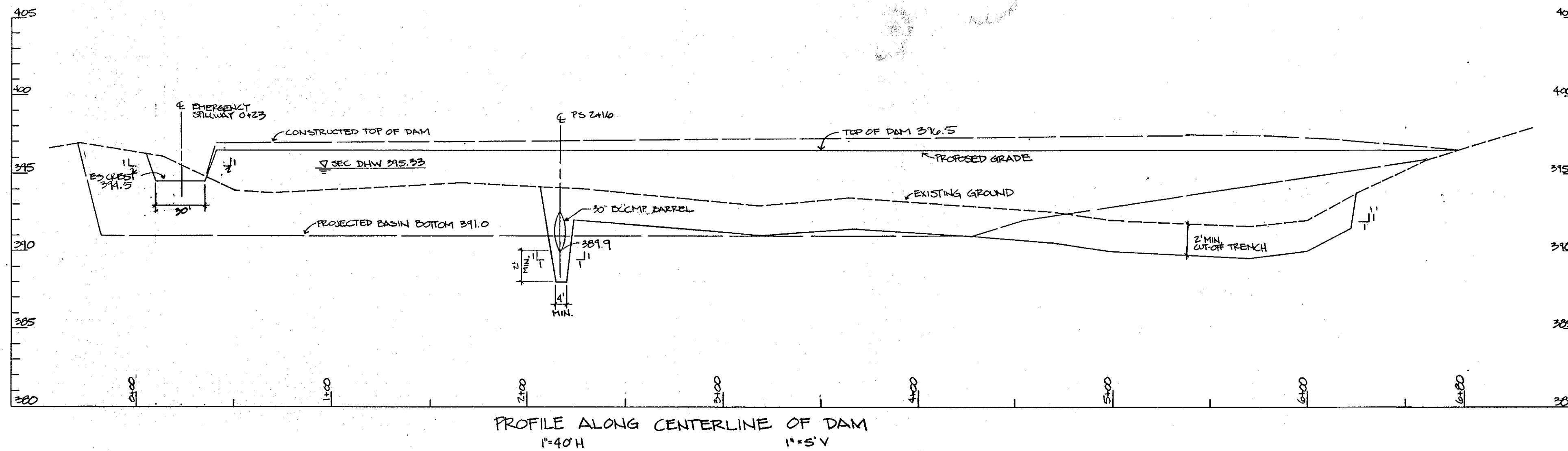
5-10-94
Date



Professional Engr. No. 16998

DMW
Darr McConna-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 286-3333
Fax 286-4705
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION NAME	VILLAGE OF LONGREACH	SECTION/AREA	SEC 3 / AREA 2	LOT/PARCEL #	93/657
PLAT OR LOT BLOCK #	11270-75	TAX ZONE MAP	7	ELECT. DISTRICT	6067.03
WATER CODE	E 06	SEWER CODE	3530000		
TITLE	SITENWOK BID 21 MARCH 94 SEDIMENT AND EROSION CONTROL BASIN #1 PLAN				
Des By	CRW	Scale	1" = 40'	Proj. No.	92087A
Drn By	CRW/MEP	Date	1-12-94		
Chk By	Approved				22 OF 32 3A



DEVELOPER'S CERTIFICATION
I/We certify that development and construction will be done according to this plan and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I/We authorize periodic on-site inspection by the Howard Soil Conservation District.

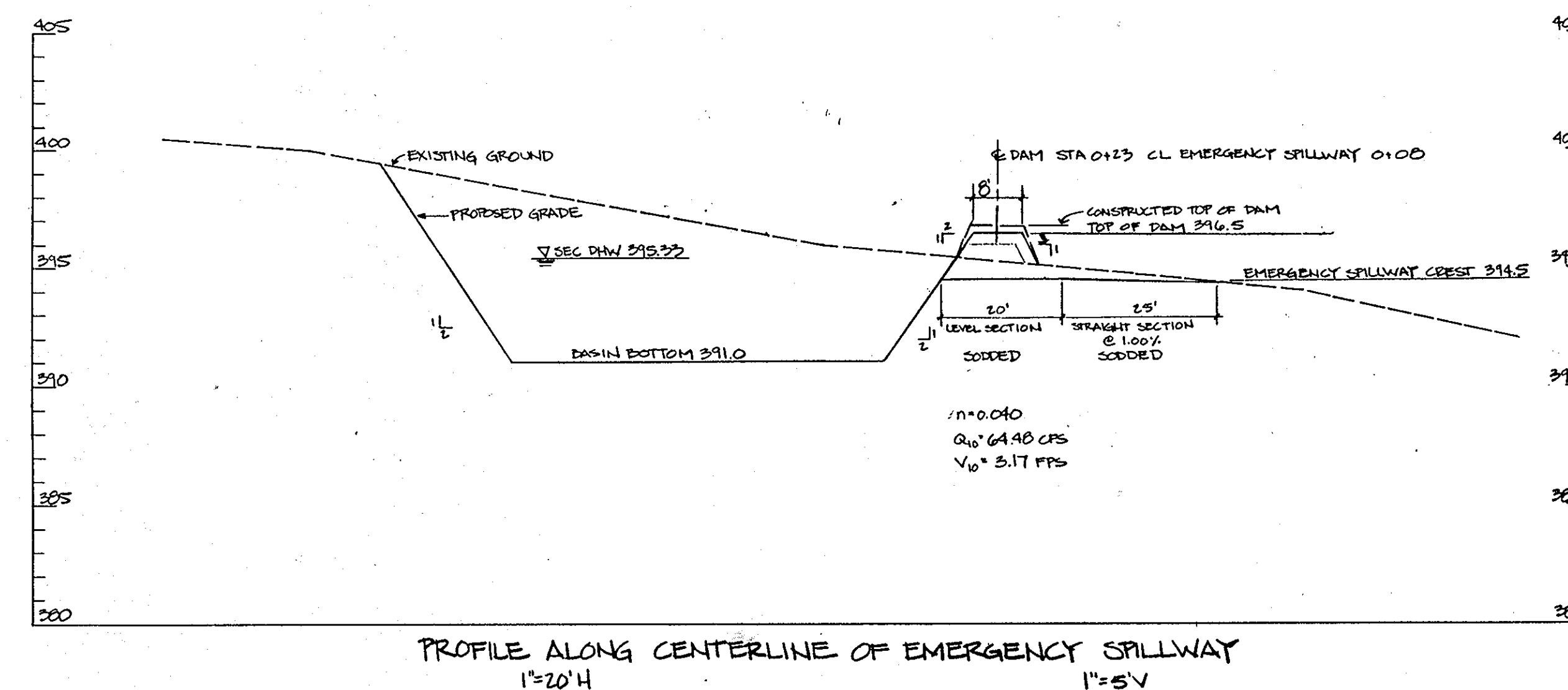
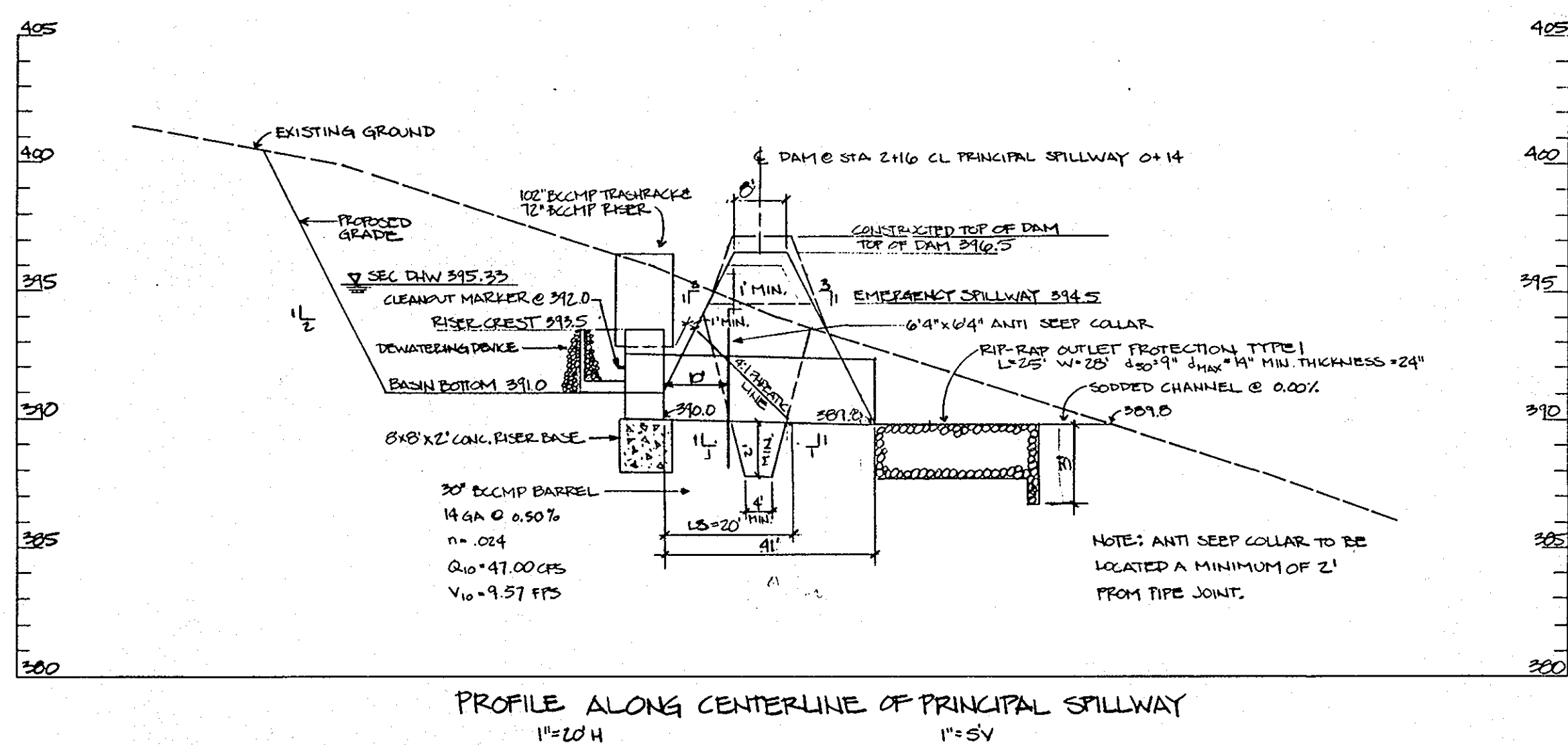
Cathleen Conley Young 2/28/94
Date

ENGINEER'S CERTIFICATION
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Larry W. Wallace 1-12-94
Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.
J. Co. Campfield/65 6/10/94
Soil Conservation Service Date

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
[Signature] 6/10/94
Date



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
James M. Boyd 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
[Signature] 6/29/94
DIRECTOR DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

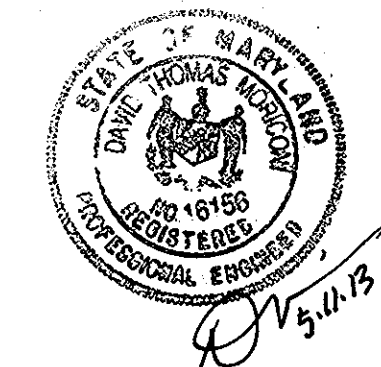
[Signature] 6/16/94
DIRECTOR DATE

[Signature] 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

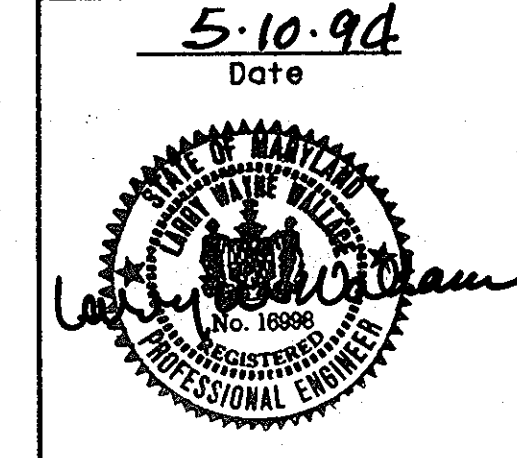
Date	No.	Revision Description
5-2013	1	REDLINE REVISION NO. 1 - CHANGED SHEET NO.

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042-8198



SEAL APPLIES TO REDLINE REVISION NO. 1
5-10-94
Date



DMW
Dach McCreane Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-8333
Fax 296-4705

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

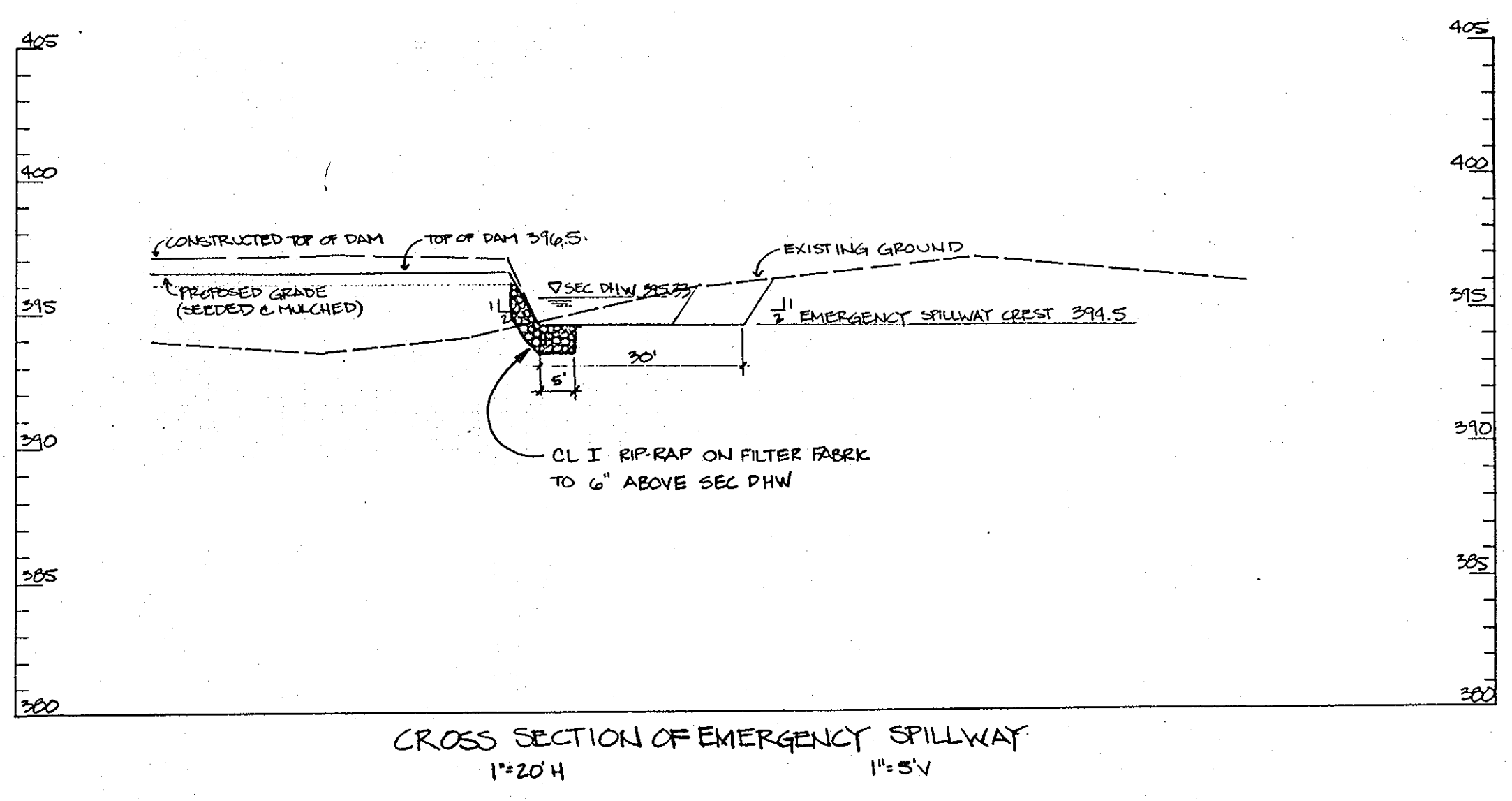
SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
VILLAGE OF LONGREACH	SEC. 3 / AREA 2	33/657
PLAT NO. OF BLOCK & LOTS	TAX/ZONE MAP	ELECT. DISTRICT
11296-73	7-107	6TH
WATER CODE	SEWER CODE	CENSUS TRACT
E 06	3530000	6067.03

TITLE: SEDIMENT AND EROSION CONTROL BASIN #1 PROFILES
SITENOTE BID 31 MARCH 94

Des By: CRW Scale: AS SHOWN Proj. No.: 92087A
Dm By: CRW/MEP Date: 1-12-94
Chk By: Approved

Professional Engr. No. 16998

23 OF 32 3A



Basin Information Table

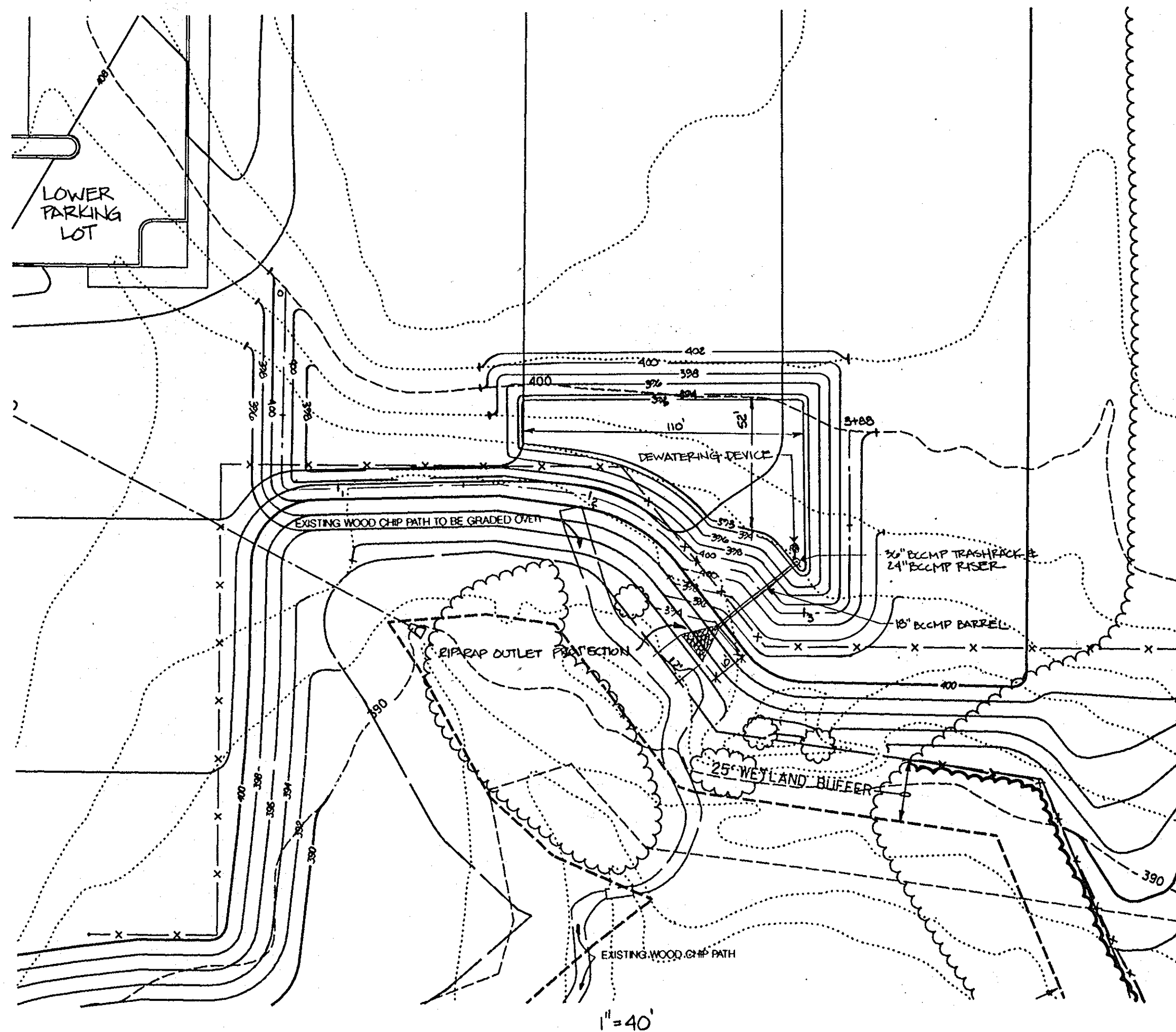
Basin Number	2
Existing Drainage Area Ac.	6.4
Interim Drainage Area Ac.	0.4
Proposed Drainage Area Ac.	0.4
Volume Required C.Y.	429
Volume Provided C.Y.	565
Top of Dam Elevation	400.0
Emergency Spillway Elevation	—
Riser Crest Elevation	396.0
Cleanout Elevation	394.5
Bottom Elevation	393.0
Q ₂ into Basin C.F.S.	2.14
Q ₂ out Barrel C.F.S.	1.85
Q ₂ out Emergency Spillway C.F.S.	—
Design High Water	396.10
Freeboard Provided	3.90
Riser Diameter	24"
Barrel Diameter	18"
Emergency Spillway Width	—
Interim SMM Required *	NO
Interim SMM Provided	NO

* EXISTING Q₂ IS LARGER THAN PROPOSED Q₂

—x—x— TREE PROTECTION FENCE

N 499500
E 853500

N 499500
E 853500



DEVELOPERS CERTIFICATION
We certify that all development and construction will be done according to this plan and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a Department of the Government Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic onsite inspection by the Howard Soil Conservation District.

Cathleen Conley Young 2/28/94
CATHLEEN CONLEY YOUNG Date

ENGINEER'S CERTIFICATION
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Larry W. Wallace 1.12.94
LARRY W. WALLACE Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.
J. Co. Campbell 4/1/99
J. Co. Campbell Date

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
[Signature] 6/10/99
Howard Soil Conservation District Date

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

Joseph M. Boyd, M.D., F.C.C. 6-22-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James S. Smith 6/29/94
DIRECTOR DATE

Anna Surumanna 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James J. Lewis 6/21/94
DIRECTOR DATE

Robert J. Seaman 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

5-2013	<input type="checkbox"/>	REDLINE REVISION NO. 1 - CHANGED SHEET NO.
Date	No.	Revision Description

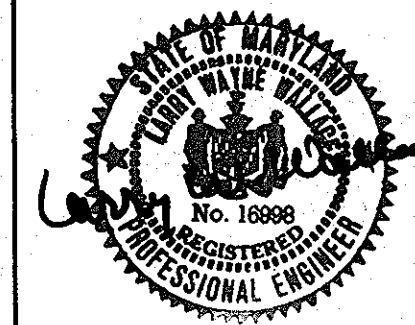
EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY SCHOOL SYSTEM
10910 RT. 108
ELLICOTT CITY, MARYLAND 21042-6198



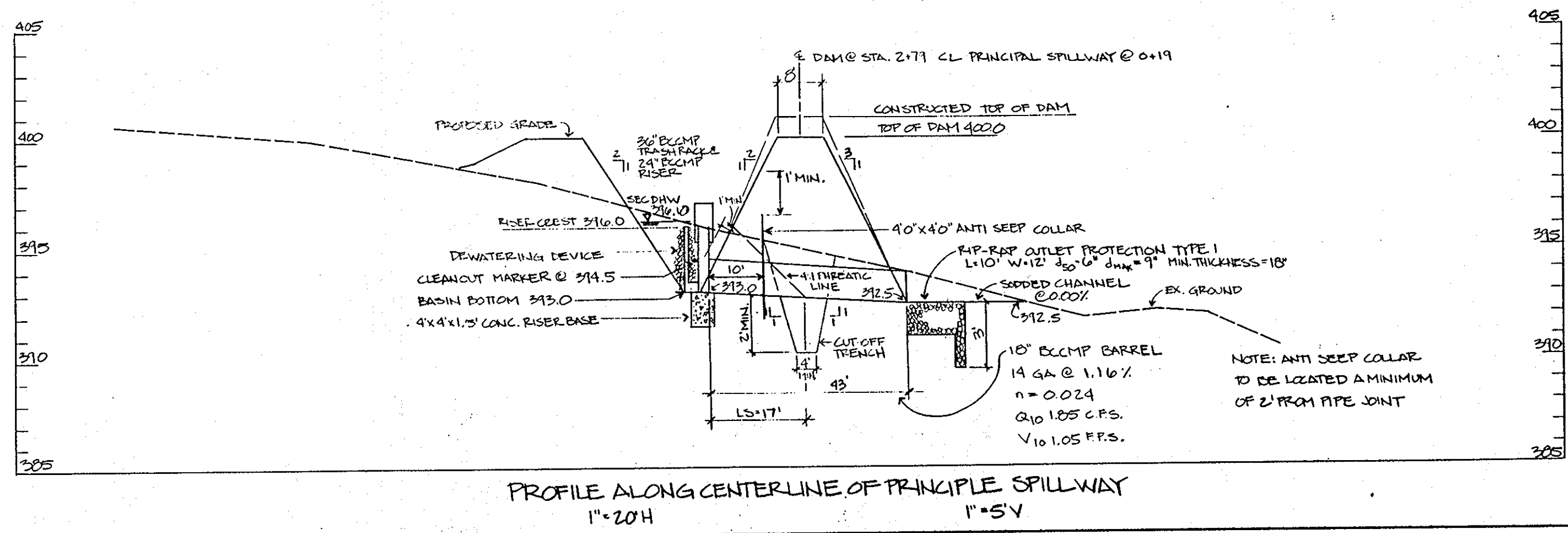
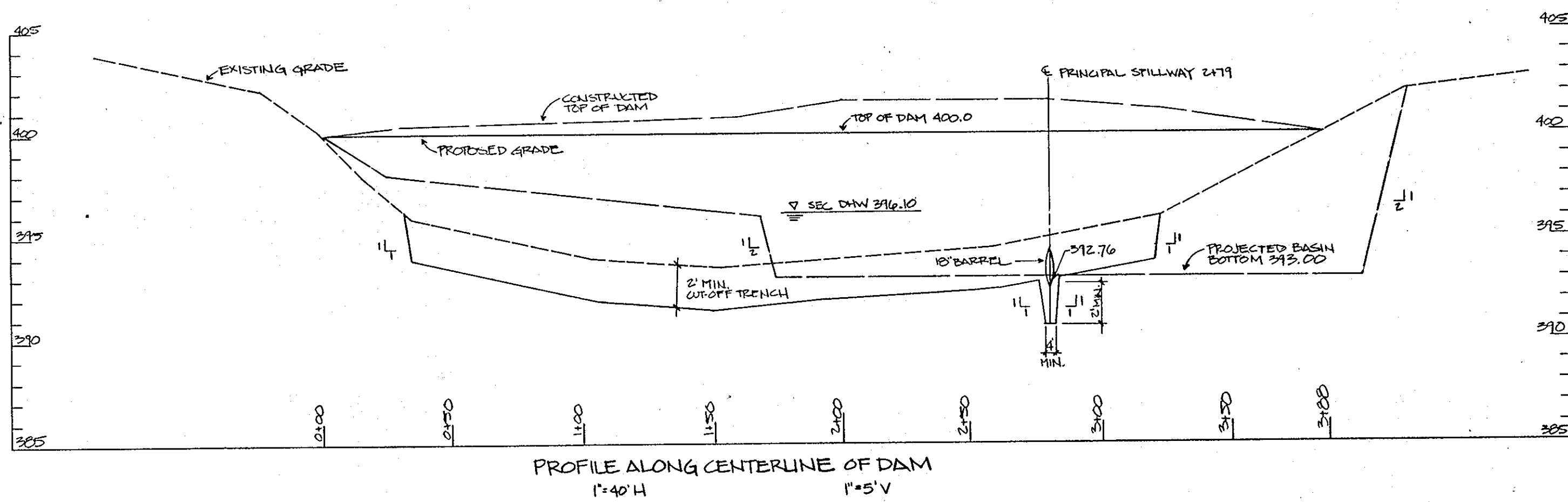
SEAL APPLIES TO REDLINE REVISION NO. 1

5.10.94
Date



Professional Eng. No. 16998

SUBDIVISION NAME	VILLAGE OF LONGREACH	SECTION/AREA	SEC 3 / AREA 2	LOT/PARCEL #	93/657
PLAT/LOT BLOCK/TOWNSHIP	11220-72	TAX/ZONE MAP	38	ELECT. DISTRICT	61H
WATER CODE	E 06	SEWER CODE	3530700	CENSUS TRACT	6067 03
TITLE	SITEWORK BID 21 MARCH 94 SEDIMENT AND EROSION CONTROL BASIN #2 PLAN AND PROFILES				
Des By	CRW	Scale	AS SHOWN	Proj. No.	92087A
Dim By	CRW/MEP	Date	1-12-94	Chk By	Approved
					24 OF 32 34



Basin Information Table

Basin Number	3
Existing Drainage Area Aa.	16.9
Interim Drainage Area Aa.	13.7
Proposed Drainage Area Aa.	10.8
Volume Required C.Y.	1,132
Volume Provided C.Y.	1,226
Top of Dam Elevation	396.0
Emergency Spillway Elevation	—
Riser Crest Elevation	393.0
Cleanout Elevation	390.0
Bottom Elevation	389.0
0 ₀ into Basin C.F.S.	70.83
0 ₀ out Basin C.F.S.	51.49
0 ₀ out Emergency Spillway C.F.S.	—
Design High Water	393.9
Freeboard Provided	2.09
Riser Diameter	60"
Barrel Diameter	36"
Emergency Spillway Width	—
Interim SWM Required	YES
Interim SWM Provided	YES

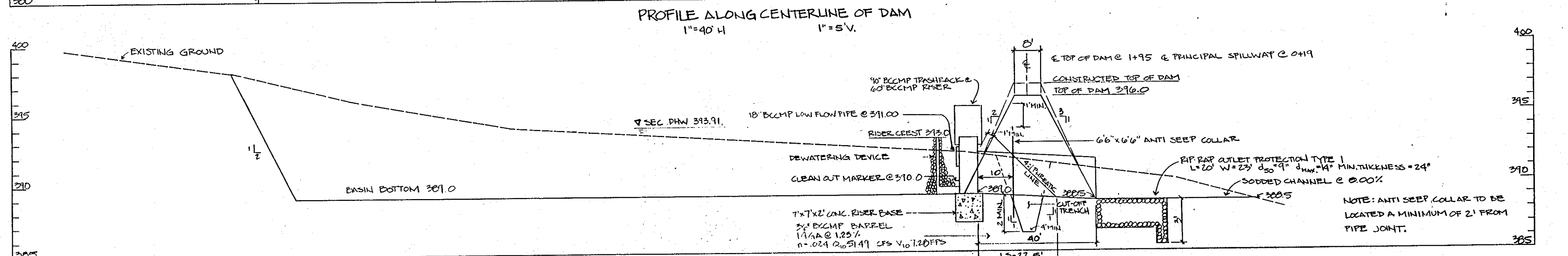
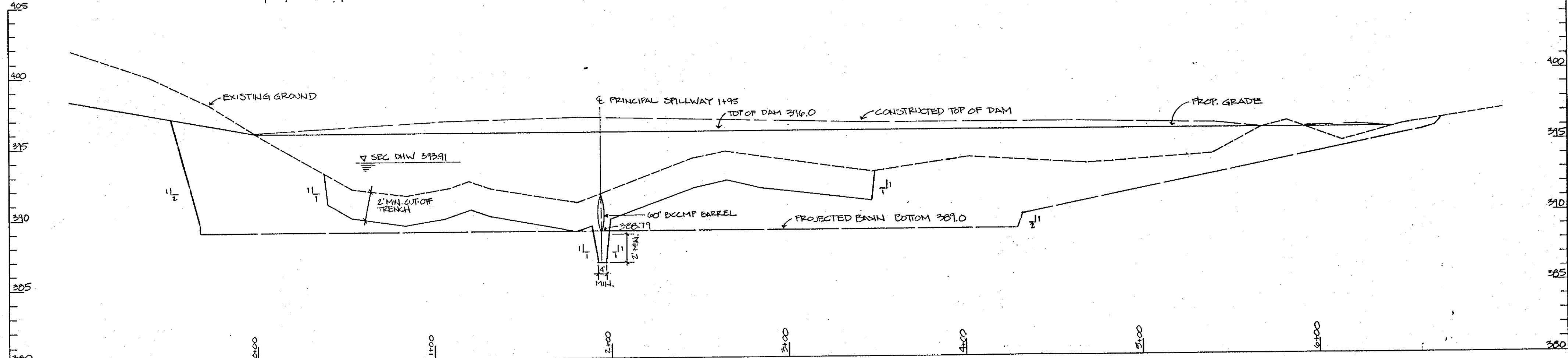
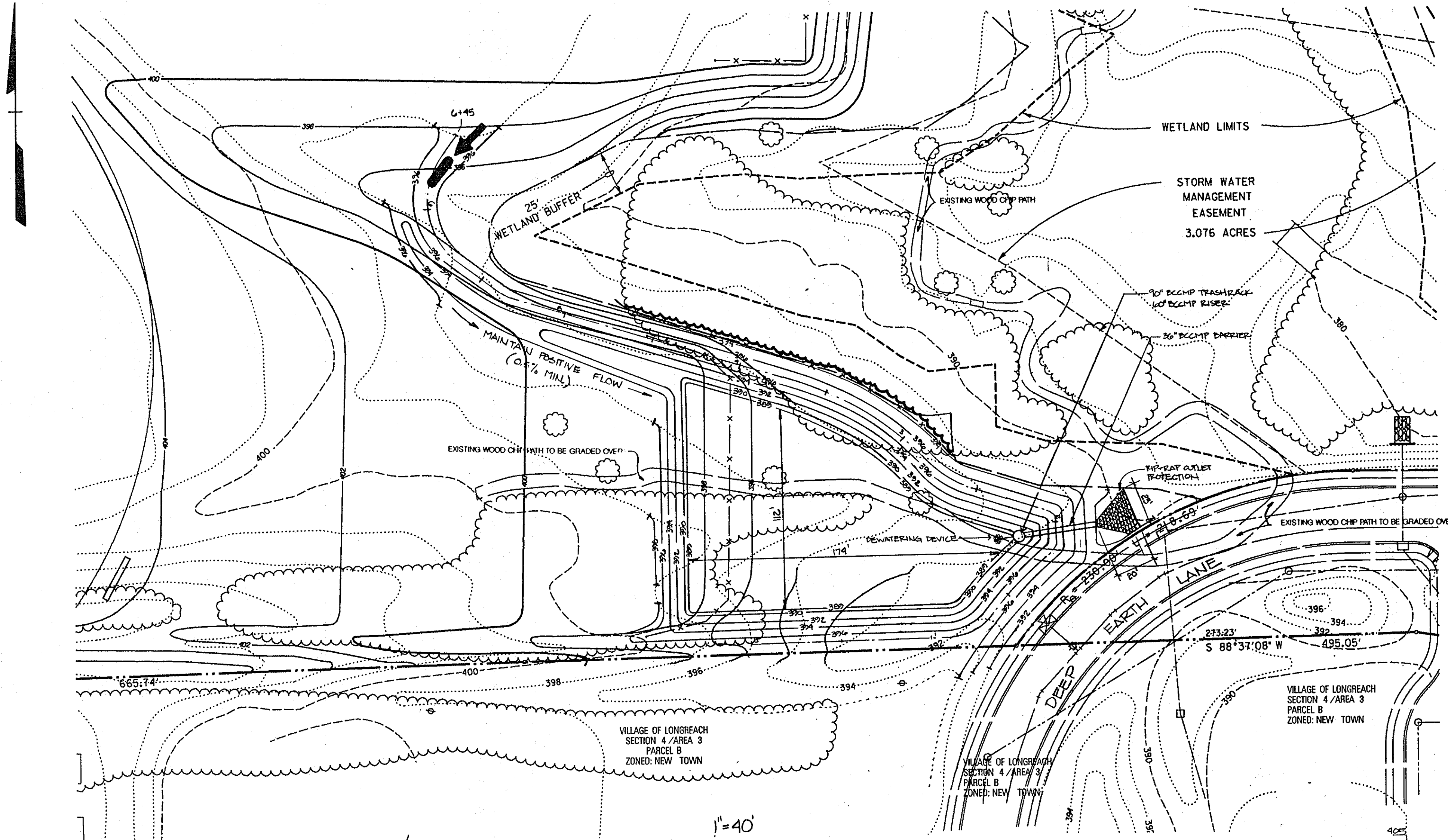
N 499000
E 853250

— TREE PROTECTION FENCE

N 498750
E 853250

405
400
395
390
385
380

400
395
390
385



DEVELOPER'S CERTIFICATION
I/We certify that all development and construction will be done according to this plan and that any responsible personnel involved in the construction project will have a Certificate of Attendance of a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District.
Cathleen Conley Young 2/28/94
CATHLEEN CONLEY YOUNG Date

ENGINEER'S CERTIFICATION
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
Larry W. Wallace 1/12/94
LARRY W. WALLACE Date

Reviewed for Howard Soil Conservation District and meets Technical Requirements.
J.C. Longfield 6/10/94
J.C. Longfield Date

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
John J. ... 6/10/94
John J. ... Date

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT
James M. Boyd 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
James ... 6/23/94
DIRECTOR DATE

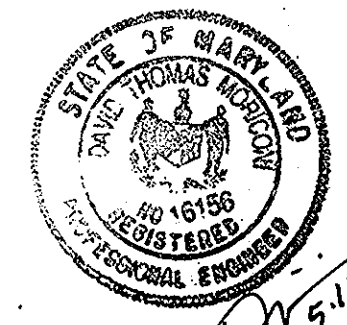
Anna ... 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
James ... 6/1/94
DIRECTOR DATE

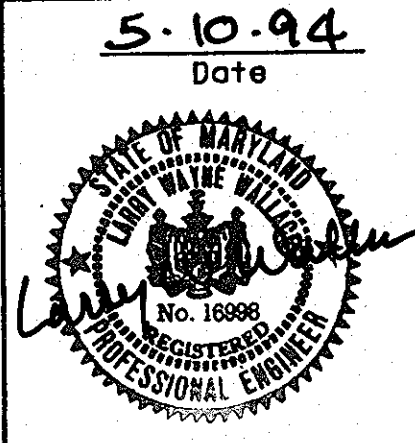
Robert ... 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

5-2013	1	REDOUNE REVISION NO. 1 - CHANGED SHEET NO.
Date	No.	Revision Description

EASTERN HIGH SCHOOL
OWNER / DEVELOPER:
HOWARD COUNTY SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042-6198



SEAL APPLIES TO REDUNE
REVISION NO. 1
5-10-94
Date



DMW
Dan McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 290-3338
Fax 290-4705

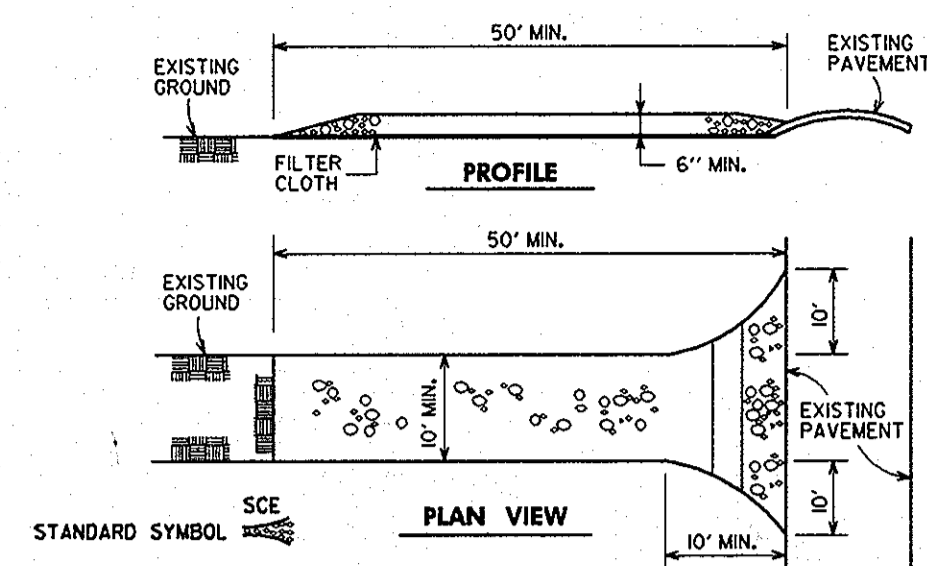
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL #
VILLAGE OF LONGREACH	SEC 3 / AREA 2	93/657
PLAT FOR LOT, BLOCK & ZONE	TAX/ZONE MAP	ELECT. DISTRICT
112-20-73-1-1-1-1	38	6067.03
WATER CODE	SEWER CODE	
E 05	353000	

TITLE: SITEWORK BID 31 MARCH 94
**SEDIMENT AND EROSION CONTROL
BASIN #3 PLAN AND PROFILES**

Des By	CRW	Scale	AS SHOWN	Proj. No.	92087A
Dim By	CRW/MEP	Date	1-12-94		
Chk By		Approved			

Professional Engr. No. 16998
25 OF 32



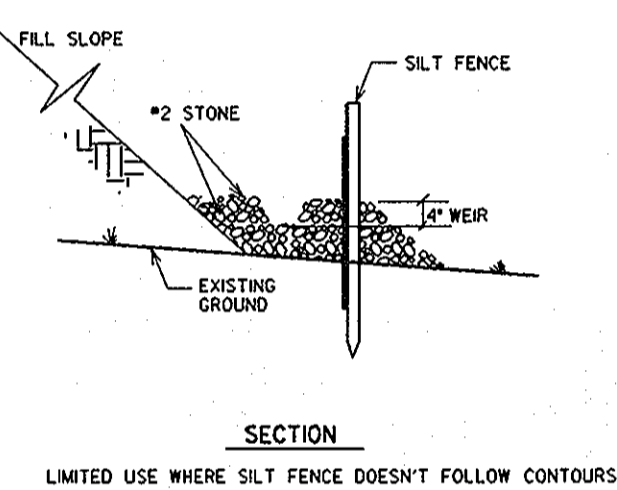
CONSTRUCTION SPECIFICATIONS:

- STONE SHALL BE 2" STONE OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - AS REQUIRED BUT NOT LESS THAN 50 FEET EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 20 FOOT MINIMUM LENGTH WOULD APPLY.
- THICKNESS - NOT LESS THAN 24" OR MORE.
- BOTH ENDS MUST BE 6" MIN. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE FILTERED THROUGH THE ENTRANCE OF PIPE OR IMPRACTICAL, A MOUNTABLE BERM WITH 2" STONE SHALL BE PROVIDED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONSTRUCTION PROGRESS AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLS, DROPPED WASH OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAIN INTO AN APPROVED SEDIMENT TRAP.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

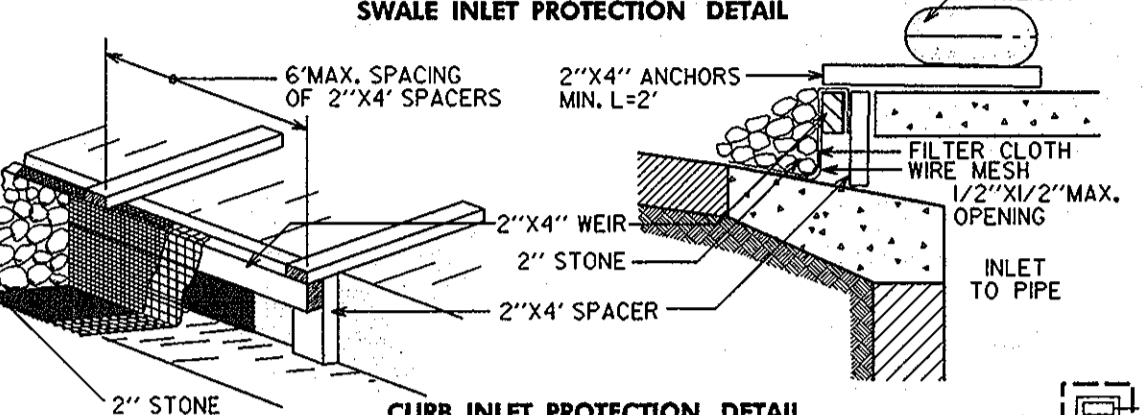
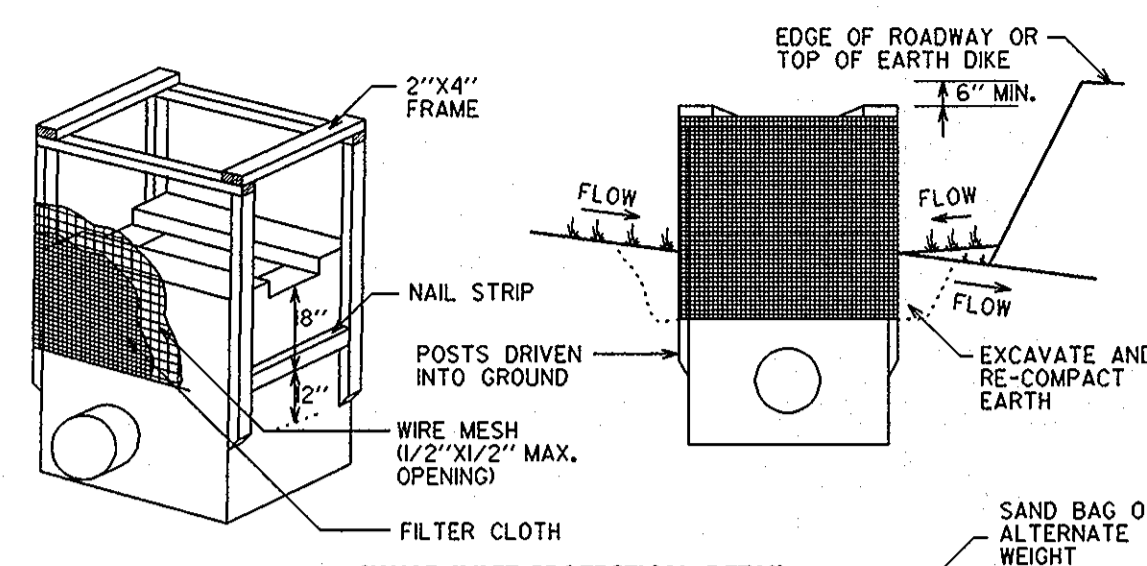
STABILIZED CONSTRUCTION ENTRANCE

STD. SILT FENCE	SUPER SILT FENCE
#2 STONE	#2 STONE
12" HIGH	12" HIGH
24" HIGH	24" HIGH
50'-100' O.C.	50'-100' O.C.

OR 4' MIN. VERTICAL CHANGE IN ELEV.



#2 STONE CHECK DAM



INLET PROTECTION DETAIL

CONSTRUCTION SPECIFICATIONS

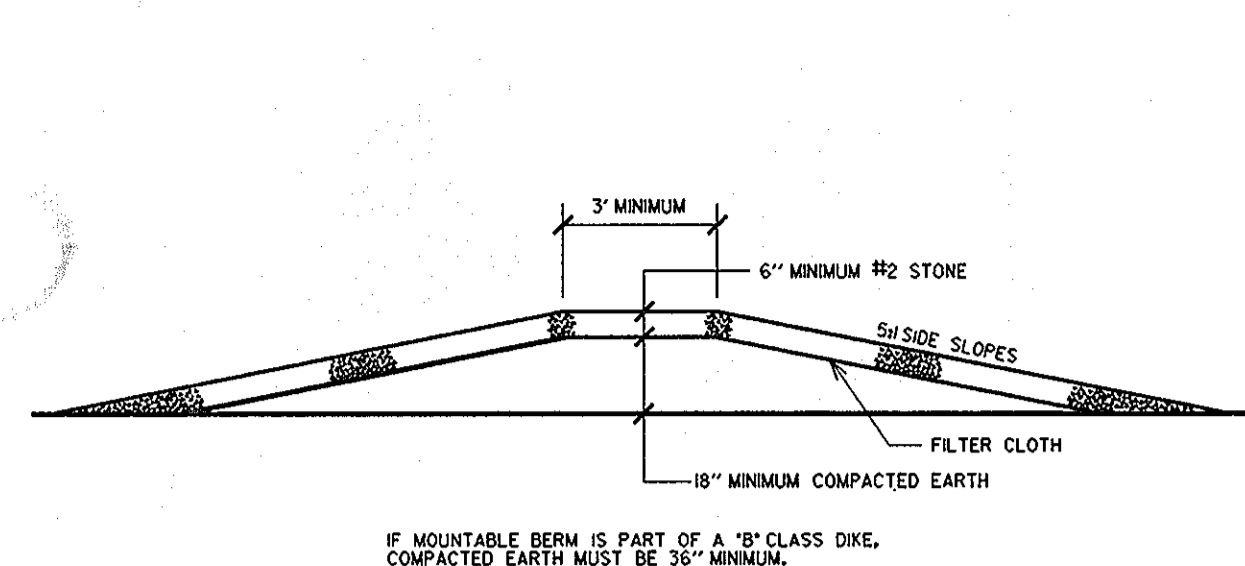
I. MATERIALS

- WOODEN FRAME IS TO BE CONSTRUCTED OF 2" X 4" CONSTRUCTION GRADE LUMBER.
- WIRE MESH MUST BE OF SUFFICIENT STRENGTH TO SUPPORT FILTER FABRIC AND STONE FOR CURB INLETS, WITH WATER FULLY IMPOUNDED AGAINST IT.
- WIRE MESH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE, RESISTANT TO SUNLIGHT WITH SEVE SIZE .E05, .E08, .E10 TO ALLOW SUFFICIENT PASSAGE OF WATER AND REMOVAL OF SEDIMENT.
- STONE IS TO BE 2" IN SIZE AND CLEAN, SINCE FINES WOULD CLOG THE CLOTH.

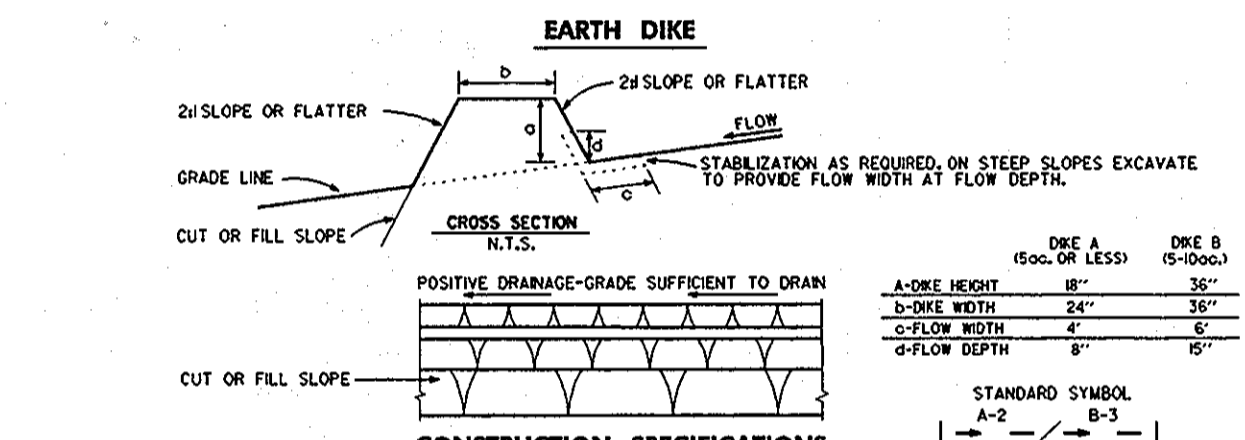
II. PROCEDURE

- SWALE, DITCHING, OR YARD INLET PROTECTION**
 - EXCAVATE COMPLETELY AROUND INLET TO A DEPTH OF 18" BELOW NOTCH ELEVATION.
 - POSTS OR ENDS OF INLET ASSEMBLY TO BE PLACED AT FOUR CORNERS OF INLET. PLACE NAIL STRIPS BETWEEN POSTS ON ENDS OF INLET. ASSEMBLE TOP PORTION OF 2" X 4" FRAME LONG OVER LAP JOINT SHOWN. TOP OF FRAME MUST BE 6" BELOW EDGE OF ROADWAY ADJACENT TO INLET.
 - STRETCH WIRE MESH TIGHTLY AROUND FRAME AND FASTEN SECURELY. ENDS MUST MEET AT POSTS.
 - STRETCH FILTER CLOTH TIGHTLY OVER WIRE MESH. THE CLOTH MUST EXTEND FROM TOP OF FRAME TO 18" BELOW INLET NOTCH ELEVATION. FASTEN SECURELY TO FRAME. ENDS MUST MEET AT POSTS, BE OVERLAPPED AND FOLDED, THEN PASTED DOWN.
 - BACKFILL AROUND INLET IN COMPACTED 6" LAYERS UNTIL LAYER OF EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
 - IF INLET IS NOT IN A LOW POINT, CONSTRUCT A COMPACTED EARTH DIKE IN THE DITCHLINE BELOW IT. THE TOP OF THIS DIKE IS TO BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME WEIR.
 - THIS STRUCTURE MUST BE INSPECTED FREQUENTLY AND THE FILTER FABRIC REPLACED WHEN CLOGGED.
- CURB INLET PROTECTION**
 - ATTACH A CONTINUOUS PIECE OF WIRE MESH (30" MINIMUM WIDTH BY THROAT LENGTH PLUS 4") TO THE 2" X 4" WEIR MEASURING THROAT LENGTH PLUS 2" AS SHOWN ON THE STANDARD DRAWING.
 - PLACE A PIECE OF APPROVED FILTER CLOTH 18" OR 24" DEEP OF THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH TO THE 2" X 4" WEIR.
 - SECURELY NAIL THE 2" X 4" WEIR TO 3" LONG VERTICAL SPACERS TO BE LOCATED BETWEEN THE WEIR AND INLET FACE (MAXIMUM 6" APART).
 - PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL ANCHORS (MINIMUM 2" LENGTHS OF 2" X 4") TO THE TOP OF THE WEIR AT SPACER LOCATIONS. THESE 2" X 4" ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT.
 - THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM 1" FROM BOTH ENDS OF THE THROAT OPENING.
 - FORM THE WIRE MESH AND FILTER CLOTH TO THE CONCRETE GUTTER AGAINST THE FACE OF CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 2" STONE OVER THE WIRE MESH AND FILTER FABRIC IN SUCH MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE FILTER CLOTH.
 - THIS TYPE OF PROTECTION SHALL BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT.
 - ASSURE THAT STORM FLOW DOES NOT BYPASS INLET BY INSTALLING TEMPORARY EARTH OR ASPHALT DIKES DIRECTING FLOW INTO INLET.

INLET PROTECTION DETAIL



MOUNTABLE BERM DETAIL



CONSTRUCTION SPECIFICATIONS

- ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
- ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- TOP WIDTH MAY BE WIDER AND SLOPE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
- FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION, RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER DYE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
- STABILIZATION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SECOND SEASON. (SEE FLOW CHANNEL AS PER THE CHART BELOW.)

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0.5-2.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.0-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXPOSED 500# 2" STONE
3	5.0-8.0%	SEED WITH JUTE, OR SOIL	LINED RIP-RAP 4"-8" 2" STONE
4	8.0-20%	LINED RIP-RAP 4"-8" 2" STONE	ENGINEERING DESIGN

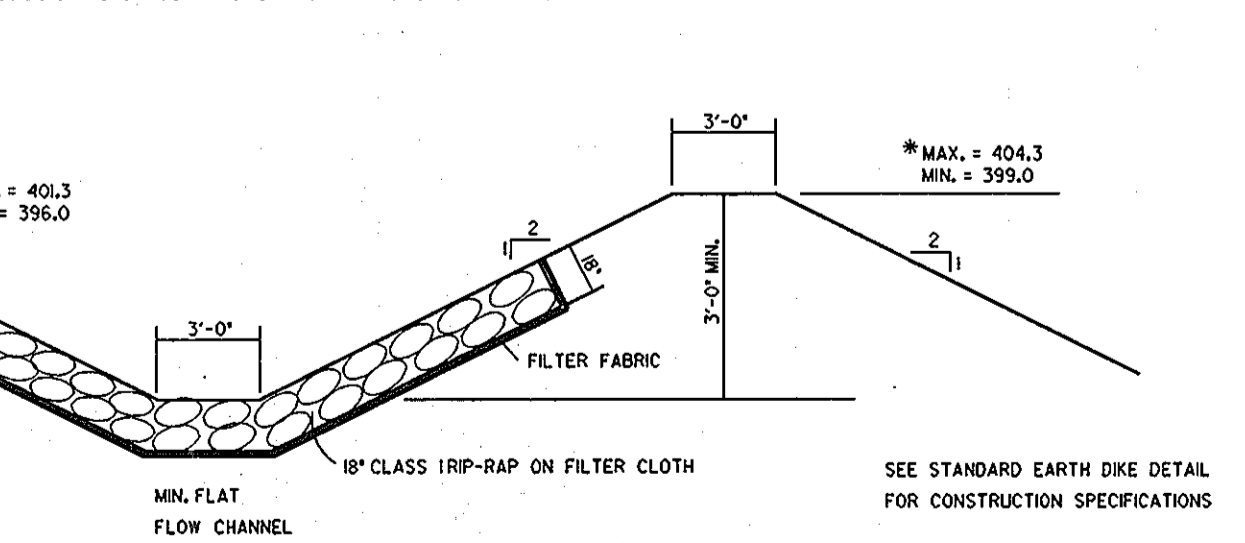
A. STONE TO BE 2" STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3" IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP-RAP TO BE 4"-8" IN A LAYER AT LEAST 6" IN THICKNESS AND PRESSED INTO THE SOIL.
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE

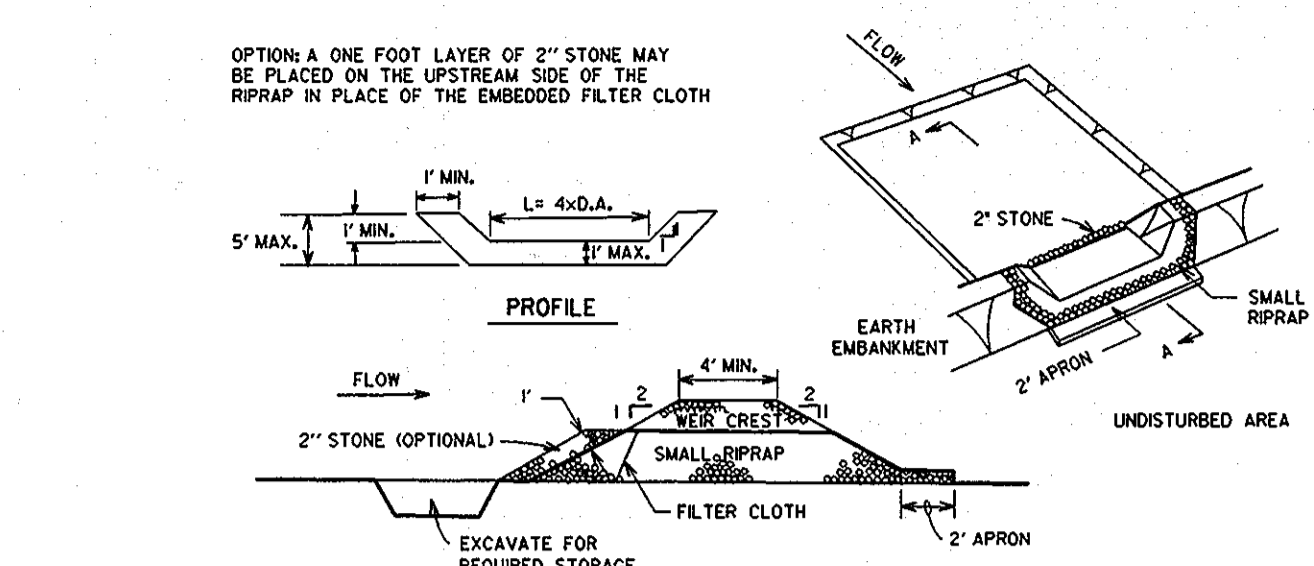
UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL PRACTICES

- EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON UPSTREAM SIDE OF TRENCH.
- IMMEDIATELY FOLLOWING PIPE INSTALLATION, THE TRENCH SHALL BE BACKFILLED, COMPACTED AND IMMEDIATELY STABILIZED (MULCHED, SEED, AND/OR SOILED MECHANICAL STABILIZATION) AT THE END OF EACH WORK DAY.
- SILT FENCE SHALL BE PLACED IMMEDIATELY DOWN STREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED LONGER THAN ONE WORKING DAY. (SILT FENCE AS PER SCS STANDARD DRAWING - SF-1)
- THE CONTRACTOR SHALL DISTURB AND OPEN TRENCH THE MINIMUM PRACTICAL AREA REQUIRED TO ACCOMPLISH THE WORK DESIGNATED FOR EACH DAY.
- ALL SEDIMENT AND EROSION CONTROL PRACTICES AND VEGETATIVE STABILIZATION SHALL BE IN ACCORDANCE WITH THE 'STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS.'

UTILITY CONSTRUCTION OUTSIDE SEDIMENT CONTROL



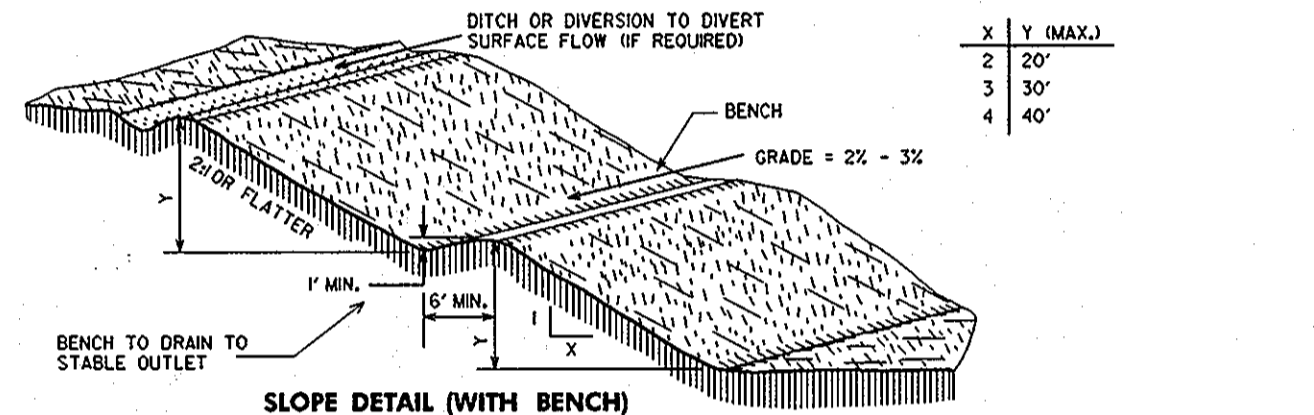
ENGINEERED DIKE



CONSTRUCTION SPECIFICATIONS FOR ST-V

- AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
- THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED OR TAMPED WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- ALL CUT AND FILL SLOPES SHALL BE 2:1 FLATTER.
- THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1" THICKNESS OF 2" AGGREGATE PLACED ON THE UPSTREAM SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
- SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP.
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
- THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

STONE OUTLET SEDIMENT TRAP



CONSTRUCTION SPECIFICATIONS

- ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED SEDIMENT CONTROL PLAN UNTIL THEY ARE PERMANENTLY STABILIZED.
- ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED SEDIMENT CONTROL PLAN AND THE 'STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS.'
- TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.
- AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL.
- AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF THREE INCHES PRIOR TO PLACEMENT OF TOPSOIL.
- ALL FILL SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER PROBLEMS. FILL SHALL BE PLACED IN 6" LAYERS TO SUPPORT ROOTINGS, STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- ALL FILL TO BE PLACED IN 6" LAYERS WITH EQUIPMENT 8" IN THICKNESS.
- EXCEPT FOR APPROVED LANDFILLS, FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBER, ROCKS, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- FILLS SHALL NOT BE PLACED ON A FROZEN FOUNDATION.
- ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE 'STANDARDS AND SPECIFICATIONS FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.'
- ALL GRADED AREAS SHALL BE IMMEDIATELY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.
- STOCKPILES, BROWNS AREAS AND SPILL AREAS SHALL BE SHOWN ON THE PLANS AND SHALL BE SUBJECT TO THE PROVISIONS OF THIS STANDARD AND SPECIFICATIONS.

LANDGRADING

DEVELOPER'S CERTIFICATION

I/WE certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project without a certificate of approval of a Department of the Environment Approved Grading Program for the Construction of a Subdivision and Grading will be held responsible. I/WE warrant periodic onsite inspection by the Howard Soil Conservation District.

John J. Wallace 2/28/94
DIRECTOR

ENGINEER'S CERTIFICATION

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

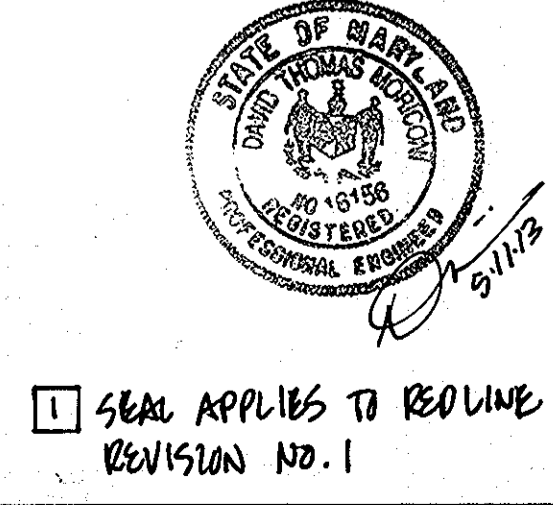
Larry W. Wallace 2/28/94
Larry W. Wallace 2/28/94
DIRECTOR

Reviewed for Howard Soil Conservation District and meets Technical Requirements.

G. Wallace 2/28/94
DISTRICT OFFICE

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

John J. Wallace 2/28/94
DISTRICT OFFICE



3-1-94
Date

16998
Professional Engr. No.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

Joseph M. Boyd 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Joseph M. Boyd 6/29/94
DIRECTOR DATE

Chris Johnson 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James J. Lewis 6/28/94
DIRECTOR DATE

Paul D. Simpson 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

5/20/93 **REDLINE REVISION NO. 1 - CHANGED SHEET NO.**

Date No. Revision Description

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Dan McCune-Walker, Inc.
300 East Pennsylvania Avenue
Poussin, Maryland 21780
(410) 296-3333
Fax 296-4706

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION: VILLAGE OF LONGBEACH SECTION: SEC. 3 AREA 2 LOT/PARCEL #: 93/657
PLAT NO.: 11826-293 INDEX: 107 TAXZONE MAP: 3S ELECT. DISTRICT: 8TH GENUS TRACT: 6067.03
WATER CODE: E 06 SEWER CODE: 3930000

TITLE: SITEWORK BID BY MARCH 94
SEDIMENT & EROSION CONTROL
DETAILS

Des By: CRW Scale: 1" = 40' Proj. No.: 92087A
Dwn By: JUN Date: 1-12-94
Chk By: LWW Approved: 26 OF 32

STONE OUTLET STRUCTURE

1. THE STONE SHALL BE CRUSHED STONE. GRAVEL MAY BE USED IF CRUSHED STONE IS NOT AVAILABLE. THE STONE SHALL MEET MSHA SIZE NO.2 OR AASHTO DESIGNATION M43 SIZE NO.2 OR 24.

2. THE CREST OF THE STONE DIKE SHALL BE AT LEAST SIX INCHES LOWER THAN THE LOWEST ELEVATION OF THE TOP OF THE EARTH DIKE AND SHALL BE LEVEL.

3. THE STONE OUTLET STRUCTURE SHALL BE EMBEDDED INTO THE SOIL A MINIMUM OF FOUR INCHES.

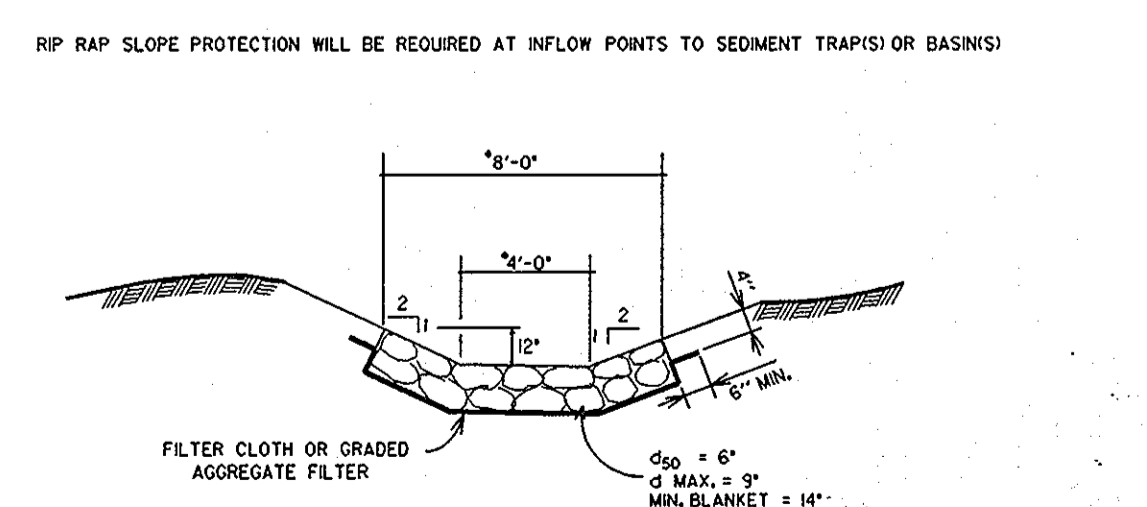
4. THE MINIMUM LENGTH IN FEET OF THE CREST OF THE STONE OUTLET STRUCTURE SHALL BE EQUAL TO SIX TIMES THE NUMBER OF ACRES OF CONTRIBUTING DRAINAGE AREA.

5. THE STONE OUTLET STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN, AND THE STONE BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE STONE, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

U.S. DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MD. 1505-9 * DRAINAGE AREA LESS THAN 5 ACRES.

STONE OUTLET STRUCTURE

RIPRAP SLOPE PROTECTION



RIPRAP SLOPE PROTECTION

ENGINEERED DIKE

* SEE SHEET 19 OF 32 FOR SPOT ELEVATIONS ALONG ENGINEERED DIKE

SEAL APPLIES TO REDLINE REVISION NO. 1

Site Preparation

Areas under the embankment shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots or other objectionable material. In order to facilitate clearing and restoration, the poles are measured at the top of the pipe spillway will be cleared of brush, trees, and other objectionable materials.

Cut-Off Trench

A cut-off trench shall be excavated along the centerline of earth fill embankments. The minimum depth shall be 2 feet. The cut-off trench shall extend up both abutments to the riser crest elevation. The minimum bottom width shall be 4 feet, but wide enough to permit operation of excavation and compaction equipment. The side slopes shall be no greater than 1:1. Compaction requirements shall be the same as those for embankment. The trench shall be dewatered during the backfilling-compaction operations.

Embankment

The filter material shall be taken from approved areas shown on the plans. It shall be clean mineral soil free of roots, woody vegetation, oversized stones, rocks, or other objectionable material. Relatively pervious materials such as sand or gravel (Unified Soil Classes GW, GP, SW and SP) shall be placed in the embankment. Areas on which fills to be placed shall be scarified prior to placement of fill. The filter material shall contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball it is too wet for proper compaction. Filter material shall be placed in 6 inch to 8 inch thick continuous layers over the entire length of the fill. Compaction shall be obtained by routing and tamping the construction equipment over the filter so that the entire surface of each layer of the fill is traversed by at least one wheel tread track of the equipment or by the use of a compactor. The embankment shall be constructed to an elevation 10 percent higher than the design height to allow for settlement.

Pipe Spillways

The riser shall be securely attached to the barrel barrel stub by welding the full circumference making a water-tight structural connection. The connection must be attached to the riser at the same percent (angle) of grade as the outlet conduit. The connection between the riser and the riser pipe shall be water-tight. All connections between construction sections must be achieved by approved water-tight band assemblies. (See page 1822 for details). The barrel shall be placed on a firm, smooth foundation of impervious soil. Pervious materials such as sand, gravel, or crushed stone shall not be used as backfill around the pipe or anti-seep collars. The filter material around the pipe spillway shall be placed in 4 inch layers and compacted the pipe to at least the same density as the adjacent embankment.

A minimum depth of 2 feet of hand compacted backfill shall be placed over the pipe spillway before crossing it with construction equipment. Steel base plates on riser shall be at least 2-1/2 feet of compacted earth, stone or gravel placed over it to prevent flotation.

Emergency Spillway

The emergency spillway shall be installed in undisturbed ground. The achievement of planned elevations, grades, design width, entrance and exit channels shall be critical to the successful operation of the emergency spillway and must be constructed within a tolerance of +0.2 feet.

Vegetative Treatment

Stabilize the embankment and emergency spillway in accordance with the appropriate vegetative Standard and Specifications immediately following construction, in no case shall the embankment remain unstabilized for more than seven days.

Erosion and Pollution Control

Construction operations shall be carried out in such a manner that erosion and water pollution will be minimized. Stone and boulders shall be placed with concerning pollution abatement.

Safety

State and local requirements shall be met concerning fencing and signs, warning the public of hazards of soft sediment and floodwater.

Maintenance

1. Repair of damages caused by settlement and construction equipment at or before the end of each working day.
2. Sediment shall be removed from the basin when it reaches the specified distance below the top of the riser. This sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the embankment, adjacent to a stream or floodplain.

Final Disposal

When temporary structures have served their intended purpose and the contributing drainage areas has been properly stabilized, the embankment and resulting sediment deposits are to be leveled or otherwise disposed of in accordance with the approved sediment control plan. The proposed use of a sediment basin site will often dictate the disposition of the soil and any sediment contained therein. If the site is scheduled for future construction, then the basin material and trapped sediments must be removed, safely disposed of, and backfilled with a structural fill. When the basin area is to remain open space, the pond may be pumped dry, graded and back filled.

SEDIMENT BASIN CONSTRUCTION SPECIFICATIONS

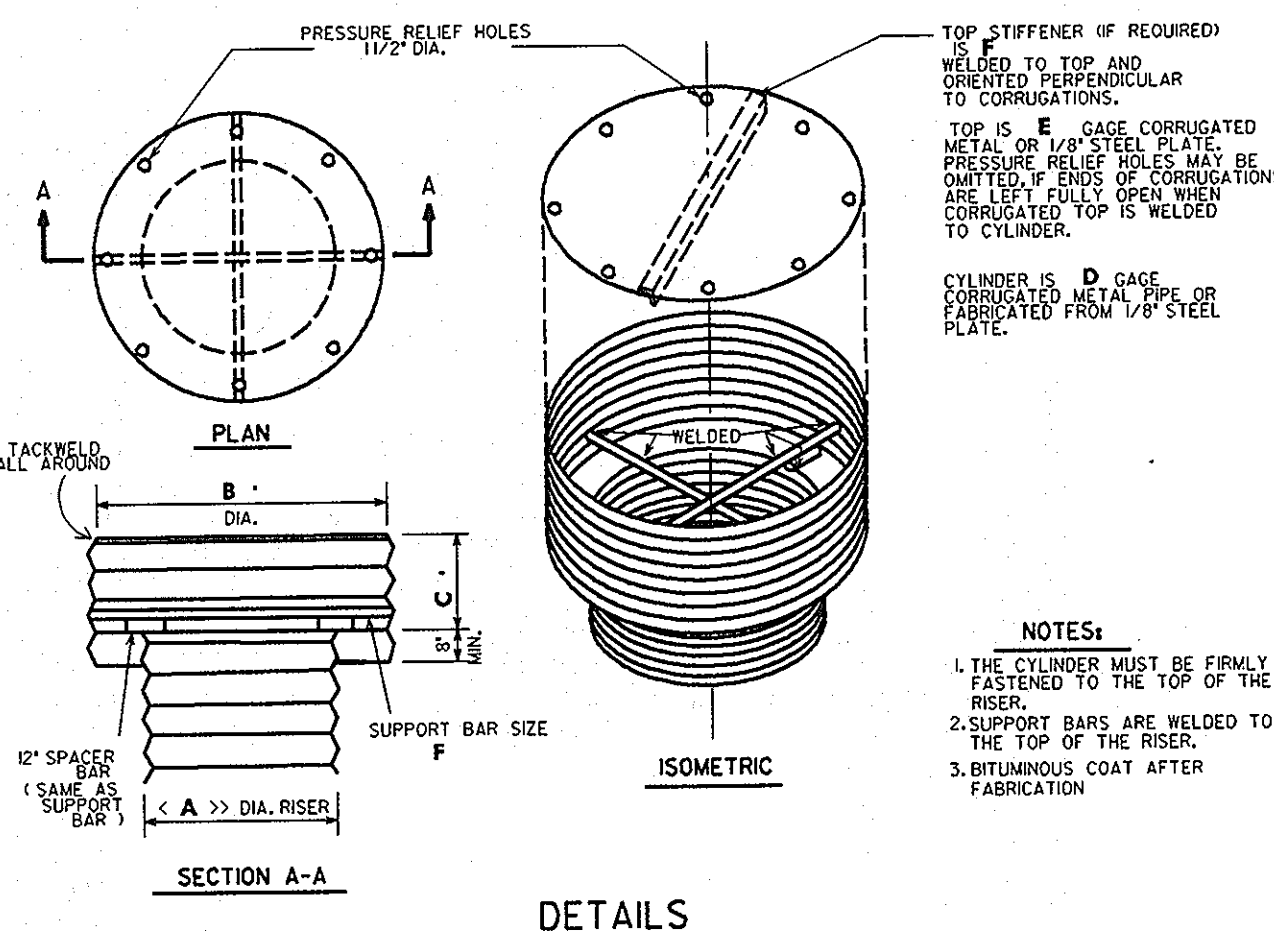
SEDIMENT BASIN CONSTRUCTION SPECIFICATIONS

CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE CONSTRUCTION TABLE

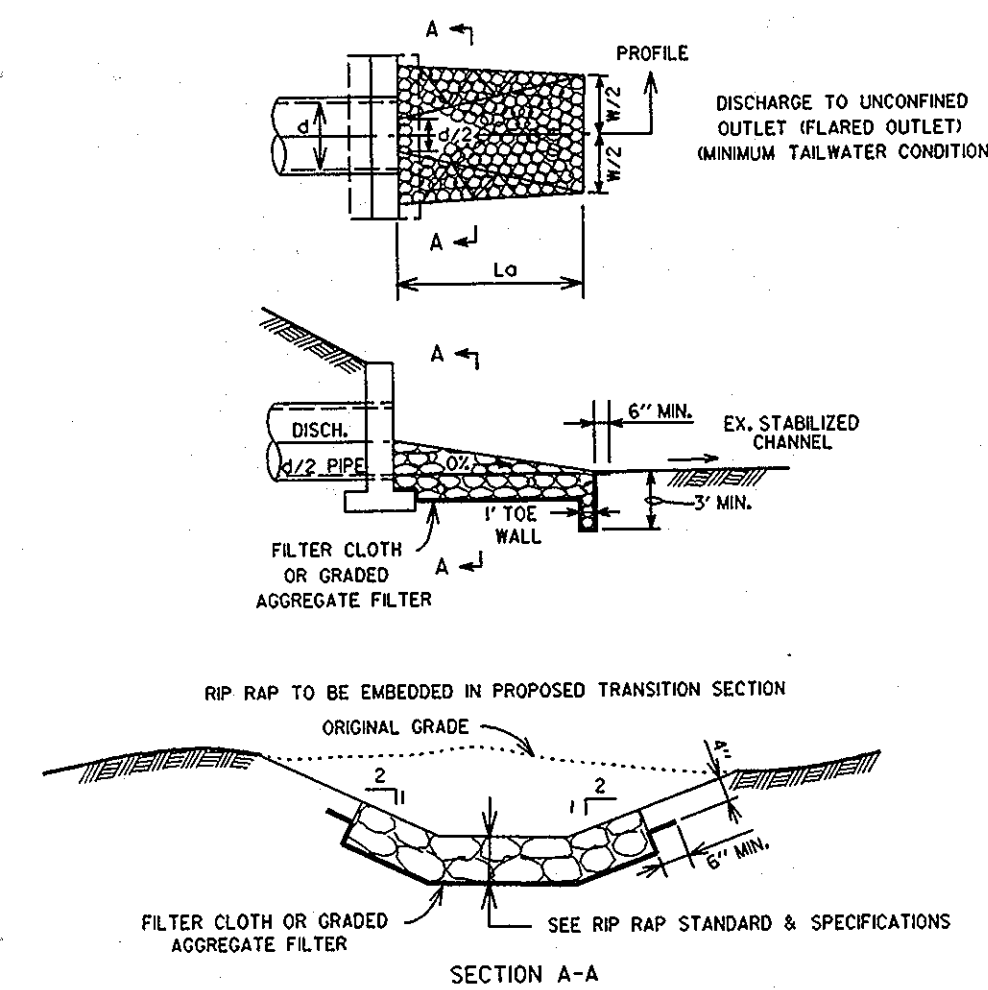
	BASIN #1	BASIN #2	BASIN #3
A	72'	24'	60'
B	102'	36'	29'
C	36'	13'	30'
D	10'	16'	12'
E	8	14	8
F	2 1/2' x 2 1/2' x 1/4"	NOT REQUIRED	1/2" PIPE OR 1/2" x 1/2" x 1/4" ANGLE

RISER CONSTRUCTION TABLE

	BASIN #1	BASIN #2	BASIN #3
A	8'-0"	4'-0"	7'-0"
B	2'-0"	1'-6"	2'-0"
C	30'	18'	36'
D	14	14	14
E	90' x 23' x 02"	90' x 47' x 47"	90' x 52' x 15"
F	72'	24'	60'
G	10	14	12
H	3'-6"	3'-0"	4'-0"
J	4'-3"	3'-9"	4'-9"
K	102'	36'	90'
L	10	16	12
M	36'	13'	29'
N	44'	21'	37'
P	NA	NA	18'
O	NA	NA	1'-0"
R	1'-0"	1'-6"	1'-0"



CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE NO SCALE



RIPRAP OUTLET PROTECTION I

CONSTRUCTION SPECIFICATIONS

- The subgrade for the filter, riprap or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
- Filter cloth shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps whether for repairs or for joining two pieces of cloth shall be a minimum of 1 foot.
- Stone for the riprap or gabion outlets may be placed by equipment. Both shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for riprap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the voids between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.

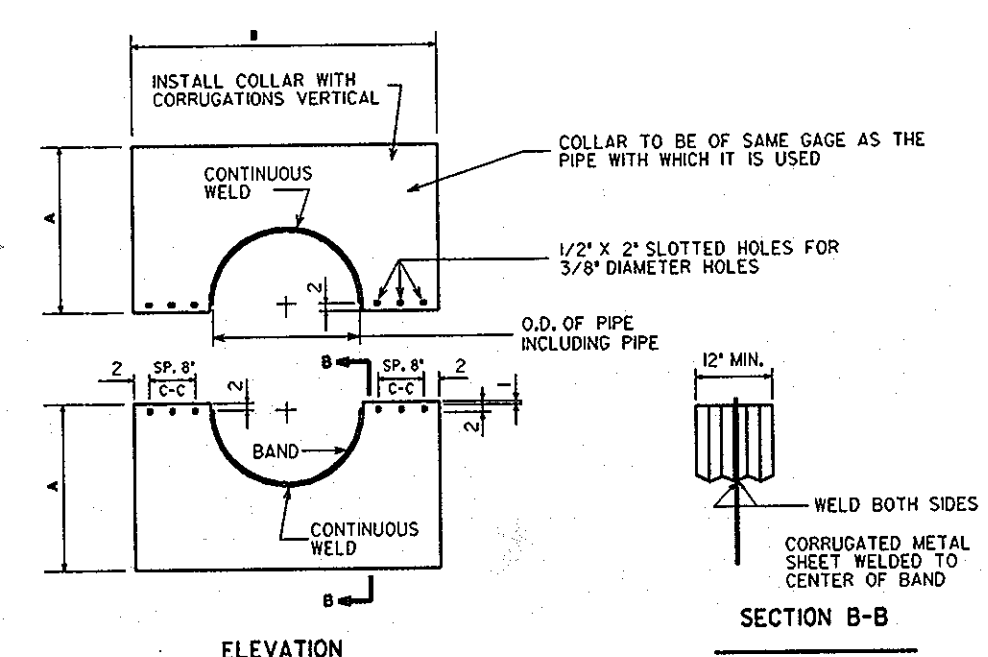
RIPRAP OUTLET PROTECTION I



SEAL APPLIES TO REVISION NO. 1

CORRUGATED METAL ANTI-SEEP COLLAR TABLE

	BASIN #1	BASIN #2	BASIN #3
NUMBER OF COLLARS	1	1	1
MINIMUM SPACING	NA	NA	NA
MAXIMUM SPACING	3'-4"	2'-2"	3'-5"
A	6'-4"	4'-0"	6'-6"



NOTES FOR COLLARS:

- ALL MATERIALS TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
- WHEN SPECIFIED ON THE PLANS, COATING OF COLLARS SHALL BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
- BITUMINOUS COAT AFTER FABRICATIONS, MAINTAIN MIN. 2'-0" BETWEEN COLLARS AND PIPE JOINTS.
- UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TAGGING TO IDENTIFY MATCHING PAIRS.
- THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND CONNECTING BAND SHALL CALKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.
- EACH COLLAR SHALL BE FINISHED WITH THRU-DIAMETER RODS WITH STANDARD TANK BOLTS FOR CONNECTING COLLARS TO PIPE.

CORRUGATED METAL ANTI-SEEP COLLAR NO SCALE

DEVELOPERS CERTIFICATION

I/We certify that all development and construction will be done according to this plan and that any responsible personnel involved in the construction project without a certificate of approval from the Department of the Environment and Planning Program for the control of sediment and erosion before beginning the project. I/also authorize periodic onsite inspection by the Howard Soil Conservation District.

Cathleen Conley Young 2/28/94
CATHLEEN CONLEY YOUNG DATE

ENGINEER'S CERTIFICATION

I certify that this plan for erosion and sediment control represents a professional and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Larry W. Wallace 2/28/94
LARRY W. WALLACE DATE

Reviewed for Howard Soil Conservation District and meets Technical Requirements.
J.G. Lunsford 4/11/94
J.G. Lunsford DATE

This Development Plan is Approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
4/11/94 DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

James M. Boyd 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James M. Boyd 6/29/94
DIRECTOR DATE
Ann Surranon 6/29/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James M. Boyd 6/21/94
DIRECTOR DATE
Robert Johnson 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

2013 Date No. 11 REVISION NO. 1 - CHANGED SHEET NO. Revision Description

EASTERN HIGH SCHOOL

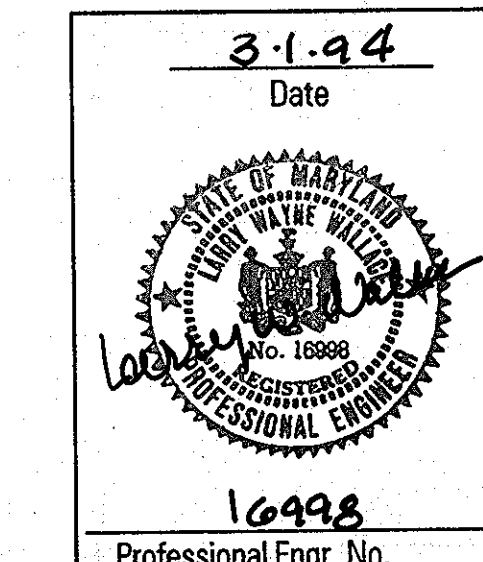
OWNER /DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Deft-MoCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

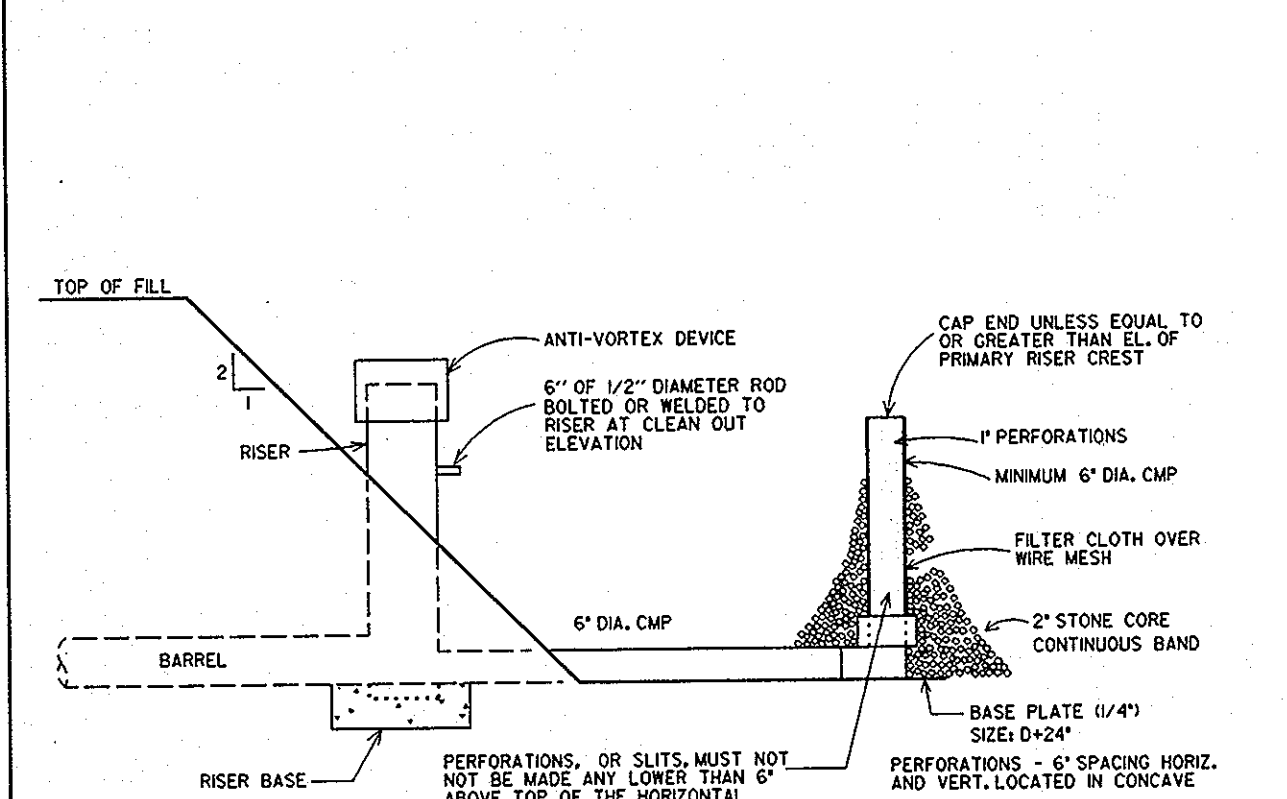
SUBDIVISION: VILLAGE OF LONGBEACH SECTION: SEC. 3 AREA 2 LOT/FACEL: 93 /657
PLAT: OR LA: BLOCK: # DATE: TOWN: MAP: 38 DIST. DISTRICT: ETH CENSUS TRACT: 6067.03
WATER CODE: E 06 SEWER CODE: 353000

TITLE: STORMWATER BID 31 MARCH 94
SEDIMENT & EROSION CONTROL DETAILS

Des By: CRW Scale: 1" = 40' Proj. No.: 92087A
Dwn By: JLN Date: 1-12-94
Chk By: LWW Approved: 28 OF 32

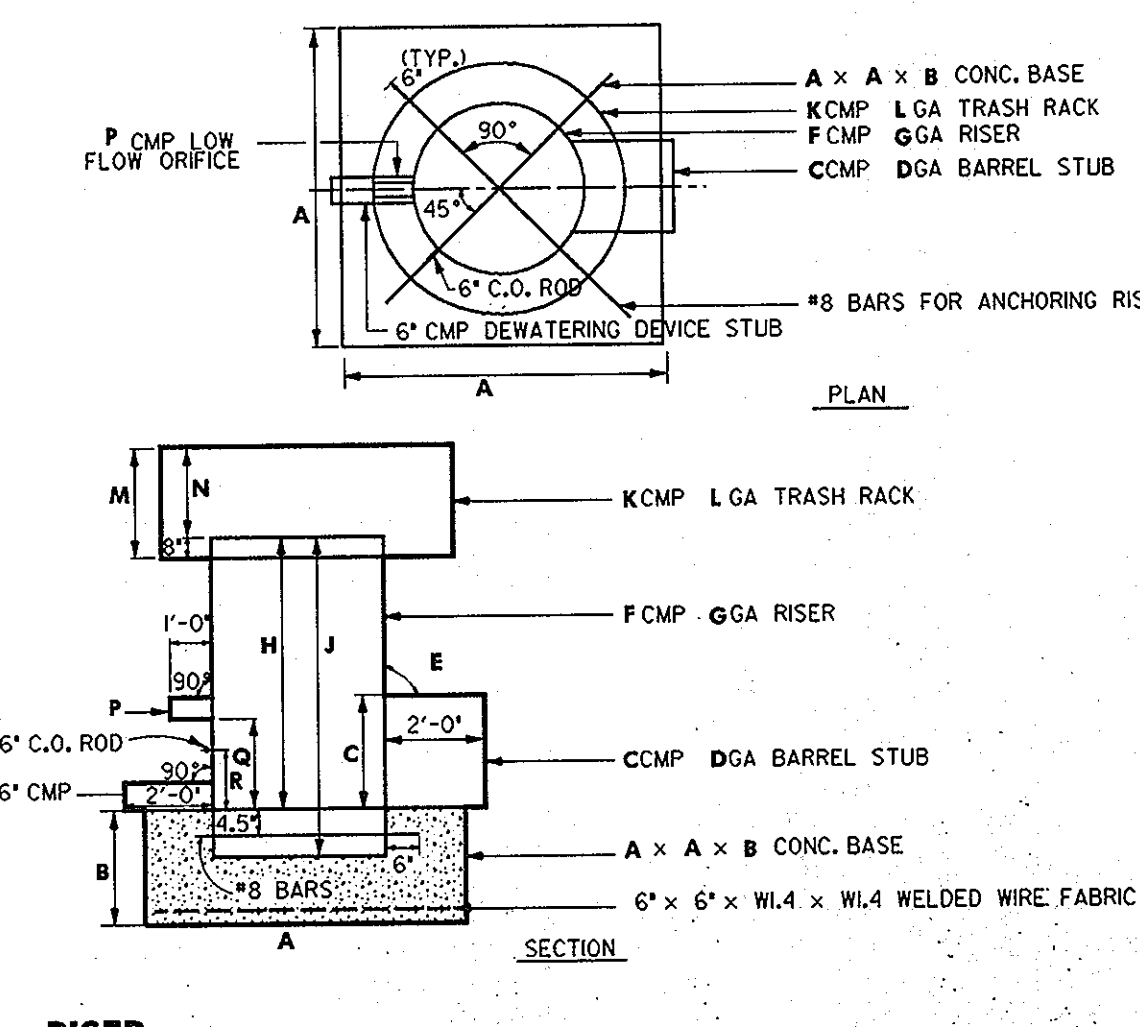


CONSTRUCTION SPECIFICATIONS

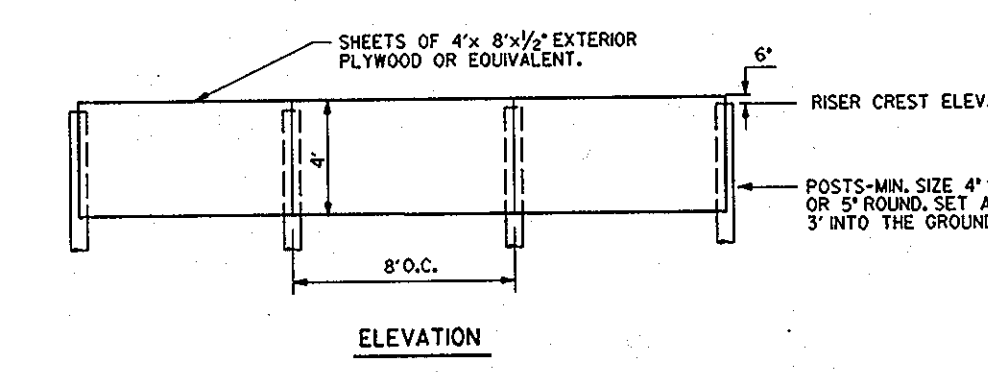


- DEWATERING DEVICE SHALL BE 6" MINIMUM DIAMETER METAL PIPE EXTENDING INTO BASIN AREA.
- PIPE SHALL BE WELDED OR CEMENTED TO RISER AND HAVE A 6" MINIMUM DIAMETER PERFORATED METAL PIPE WELDED AT END PERPENDICULAR TO BARREL WITH A METAL CAP WELDED ONTO END OF PIPE UNLESS ABOVE EL. OF PRIMARY RISER CREST.
- PIPE SHALL BE SECURELY WRAPPED WITH APPROVED FILTER CLOTH AND COVERED ON ALL SIDES WITH NO. 24 STONE TO THE CLEAN-OUT ELEV.
- CLEAN OUT ELEVATION FOR BASIN WILL BE DESIGNATED BY A 6" PIECE OF 1/2" DIAMETER ROD BOLTED OR WELDED TO RISER AT THE PROPER ELEVATION. ROD SHOULD BE CLEARLY VISIBLE FROM TOP OF DAM. PLEASE NOTE THAT THE 4" CLEAN OUT HOLE HAS BEEN ELIMINATED.
- SEDIMENT SHALL BE REMOVED AND BASIN RESTORED TO ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO THE CLEAN-OUT ELEVATION. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- THE STRUCTURE WILL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED. U.S. DEPT. OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MD. 20740-1500

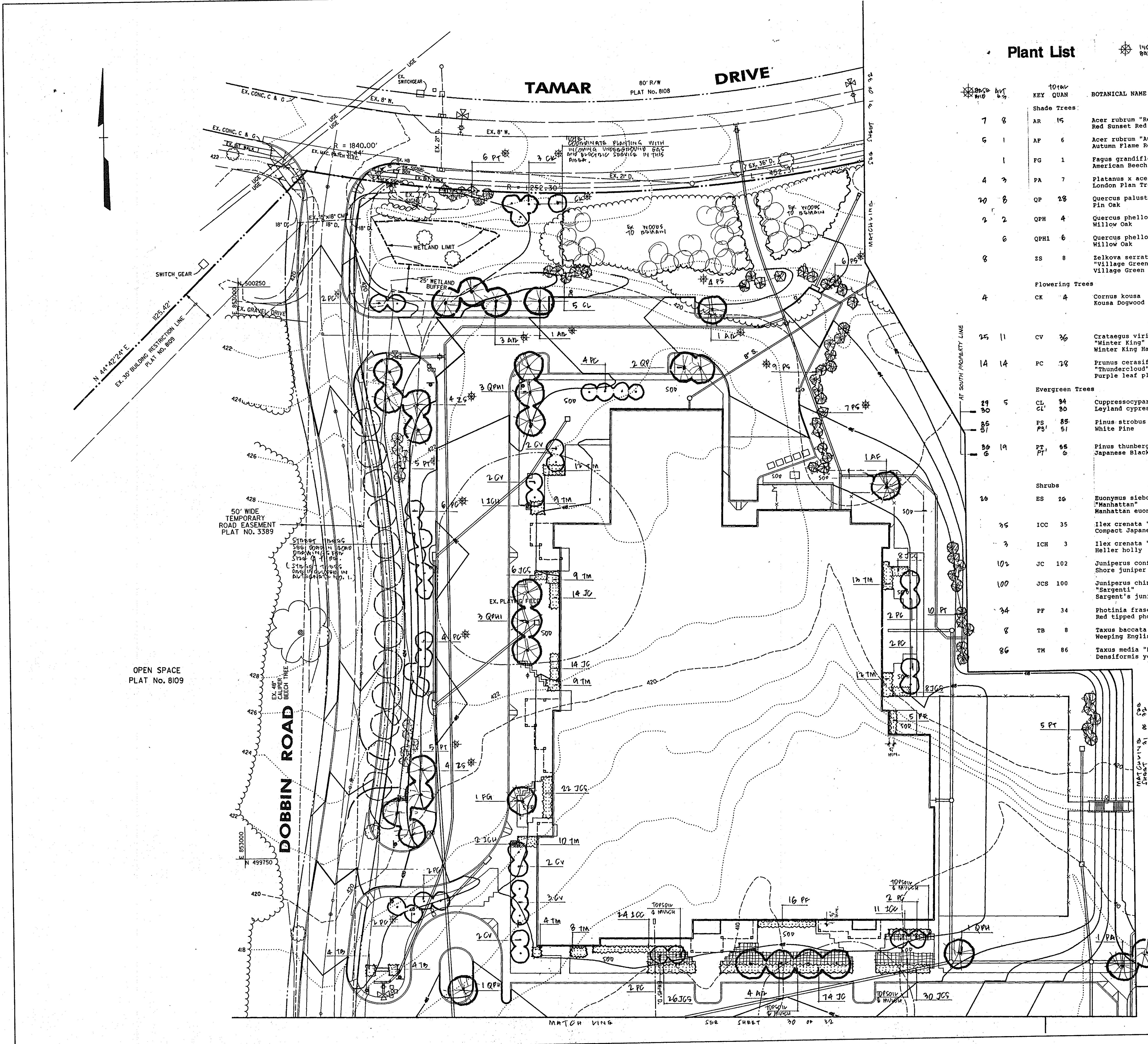
SEDIMENT BASIN DEWATERING DEVICE



RISER



BAFFLE DETAIL



Plant List

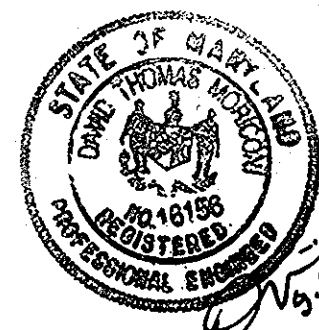
INDICATES PLANT MATERIAL TO BE INCLUDED IN BIDS AND REFER TO 'PLANTING' SECTION OF SPECIFICATIONS.

KEY	QUAN	BOTANICAL NAME	SIZE & CONDITION	REMARKS
Shade Trees:				
AR	15	Acer rubrum "Red Sunset" Red Sunset Red Maple	2 1/2"-3" cal. 12'-14', B&B	min 2' o.c.
AP	6	Acer rubrum "Autumn Flame" Autumn Flame Red Maple	2 1/2"-3" cal. 12'-14', B&B	min 2' o.c.
FG	1	Fagus grandiflora American Beech	3 1/2"-4" cal. 10'-12', B&B	
PA	7	Platanus x acerifolia London Plan Tree	2 1/2"-3" cal. 12'-14', B&B	min 2' o.c.
QP	28	Quercus palustris Pin Oak	2 1/2"-3" cal. 12'-14', B&B	min 2' o.c.
QPH	4	Quercus phellos Willow Oak	2 1/2"-3" cal. 12'-14', B&B	min 2' o.c.
QPH1	6	Quercus phellos Willow Oak	3 1/2"-4" cal. 14'-16', B&B	min 2' o.c.
ZS	8	Zelkova serrata "Village Green" Village Green Zelkova	2 1/2"-3" cal. 12'-14', B&B	min 2' o.c.
Flowering Trees:				
CK	4	Cornus kousa Kousa Dogwood	8'-10', B&B	min 12' o.c.
CV	26	Crataegus viridis "Winter King" Winter King Hawthorn	8'-10', B&B	min 12' o.c.
PC	28	Prunus cerasifera "Thundercloud" Purple leaf plum	8'-10', B&B	min 12' o.c.
Evergreen Trees:				
CL	34	Cupressocyparis leylandi Leyland cypress	6'-8', B&B 8'-10', B&B	min 9' o.c.
PS	85	Pinus strobus White Pine	6'-8', B&B 8'-10', B&B	min 9' o.c.
PT	66	Pinus thunbergii Japanese Black Pine	6'-8', B&B 8'-10', B&B	min 8' o.c.
Shrubs:				
ES	26	Euonymus sieboldiana "Manhattan" Manhattan euonymus	30-36", cont.	4'o.c.
ICC	35	Ilex crenata "Compacta" Compact Japanese holly	30-36", cont.	3'o.c.
ICH	3	Ilex crenata "Helleri" Heller holly	18-24", cont.	3'o.c.
JC	102	Juniperus conferta Shore Juniper	24-30", cont.	3'o.c.
JCS	100	Juniperus chinensis "Sargentii" Sargent's Juniper	24-30", cont.	3'o.c.
PF	34	Photinia fraseri Red tipped photinia	30-36", cont.	4'o.c.
TB	8	Taxus baccata "Repandens" Weeping English Yew	18-24", cont.	3'o.c.
TM	86	Taxus media "Densiflora" Densiflora yew	30-36", B&B	3.5' o.c.

Planting Notes

1. Field verify underground utility locations before starting planting work. Contact Architect if any relocations are required.
2. All areas disturbed by construction activities but not otherwise planted, sodded, paved or mulched shall be seeded in accordance with project specifications.
3. All plant materials shall be full and heavy, be well formed and symmetrical, conform to A.A.N. Specifications and be installed in accordance with project specifications.
4. All exposed earth within the limits of the planting beds shall be mulched with shredded hardwood mulch as per planting details.
5. Plant quantities shown on plant list are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the Plan and those shown on the Plant List, the quantities on the Plan shall take precedence.
6. This plan to be used for Planting only.
7. The contractor shall notify the Architect in writing if he/she encounters soil or drainage conditions which may be detrimental to the growth of plants.

N 500250



1. SEAL APPLIES TO REDLINE REVISION NO. 1

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

James M. Boyd III 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Joseph R. Smith 6/29/94
DIRECTOR DATE
Ann Timmons 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James J. Lewis 6/21/94
DIRECTOR DATE
Robert J. Spon 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

55-2012	1	REVISION NO. 1 - CHANGED SHEET NO.
Date	No.	Revision Description

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW

Dawn M. Williams, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 286-3338
Fax 286-4705

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL
PLAT OR L.P. BLOCK # ZONE	TAX/ZONE MAP	ELECT. DISTRICT
11770-731-7	7	611
WATER CODE	SERIAL CODE	GENUS TRACT
6 06	3530000	6097 03

TITLE
Landscape Plan

Des By	MGN	Scale	1" = 40'	Proj. No.	92087A
Drn By	MSN	Date	1-12-94		
Chk By	Approved				29 OF 32

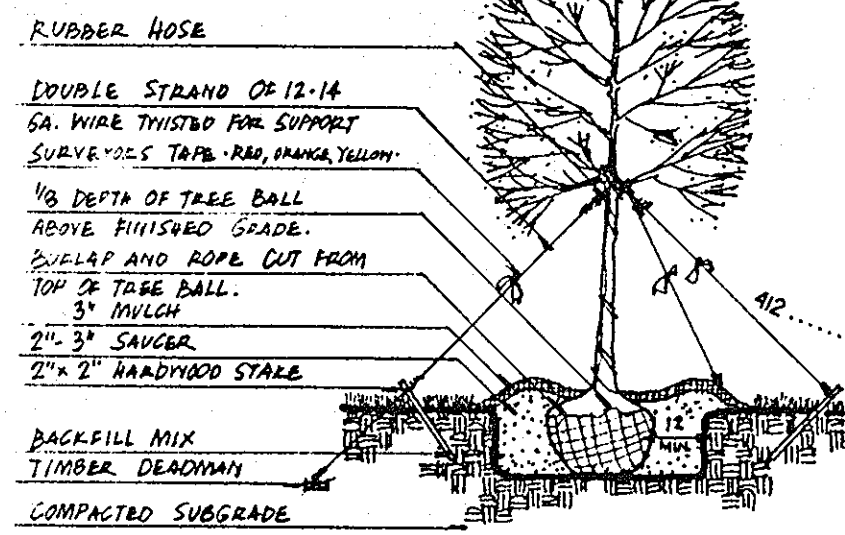
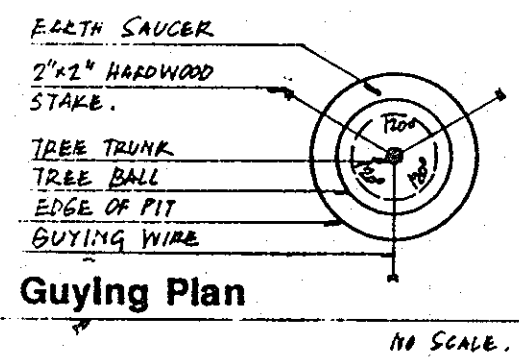


KILDUFF NAGY-LANDSCAPE ARCHITECTS
4815 Prince George's Avenue - Suite 203
Beltsville, MD 20705
(301) 595-4955 FAX (301) 595-0964
Land Planning - Landscape Architecture - Park and Recreation Planning

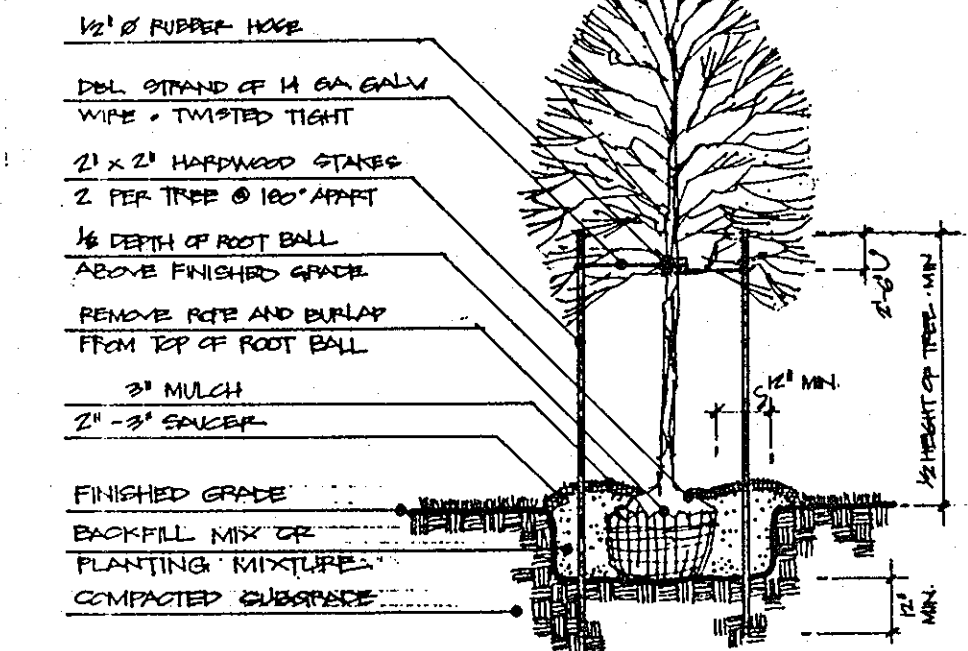
5-5-94
Date



M.A. #510
Professional Engr. No.



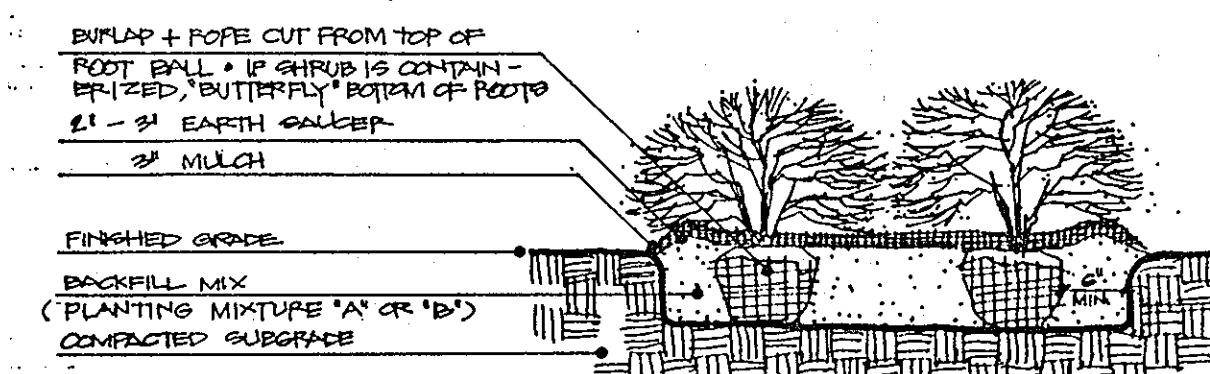
Tree Guying Detail



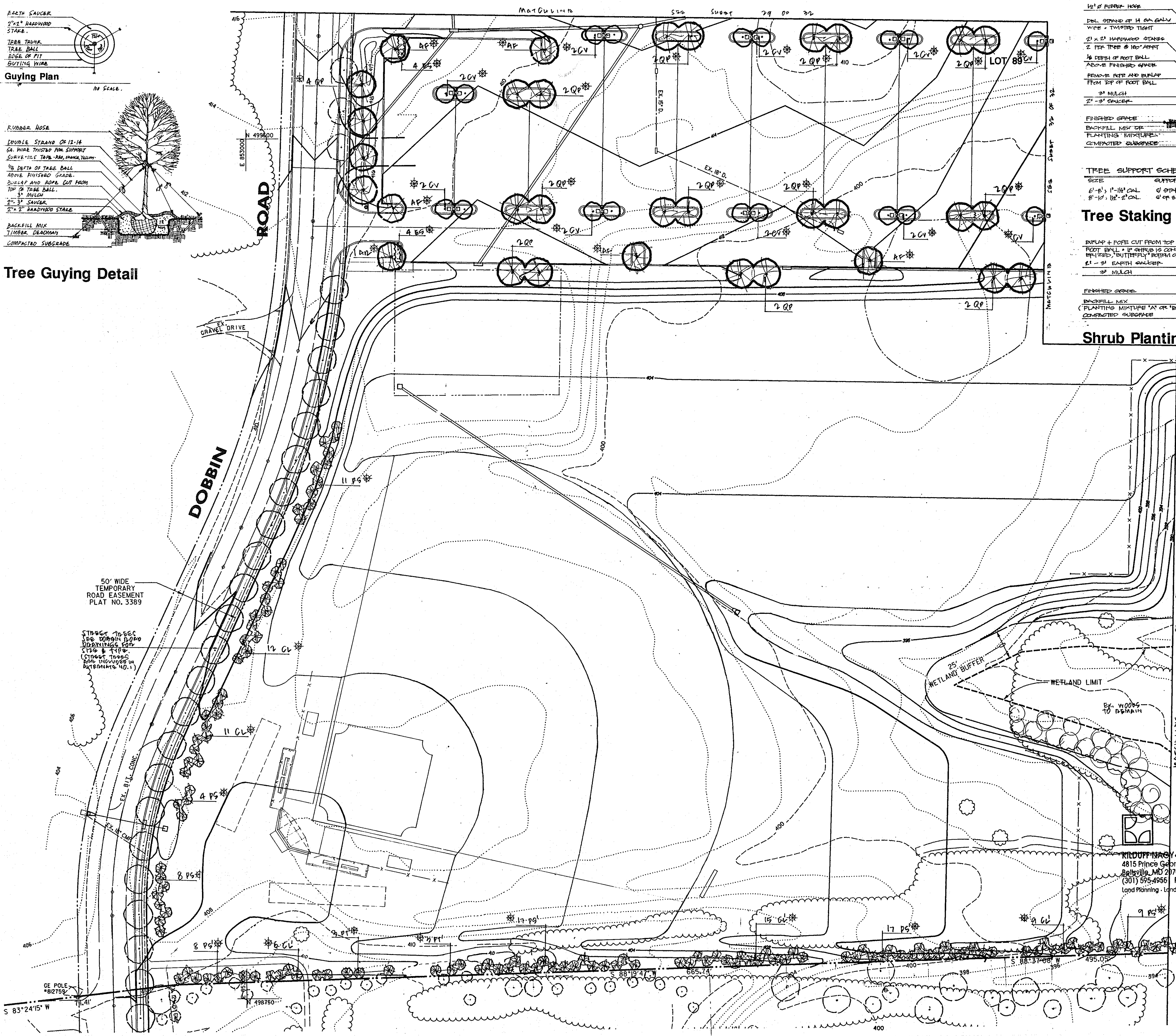
TREE SUPPORT SCHEDULE

SIZE	SUPPORT
6'-8", 1"-1 1/2" CAL	2 @ 1/4" x 2" PEED, 1/4 GA. WIRE, 1/2" HOSE
8'-10", 1 1/2"-2" CAL	2 @ 3/4" x 2" PEED, 1/4 GA. WIRE, 1/2" HOSE

Tree Staking Detail



Shrub Planting Detail



APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT	<i>James M. Boyd, M.D., F.I.C.</i>	6-23-94
COUNTY HEALTH OFFICER		DATE
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	<i>James M. Boyd, M.D., F.I.C.</i>	6/29/94
DIRECTOR		DATE
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	<i>James M. Boyd, M.D., F.I.C.</i>	6/20/94
DIRECTOR		DATE

Date	No.	Revision Description
5-20-93	I	REDLINE REVISION NO. 1 - CHANGED SHEET NO.

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT. 108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Duff-McCune-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-5253 FAX (301) 595-0964
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

5-5-94
Date
Professional Eng. No. 931657

SUBMITTED NAME	SECTION/AREA	LOT/PARCEL #
11292-731-7	11292-731-7	931657
PLAT AS L.V. BLOCK 1	TAX/ZONE MAP	ELECT. DISTRICT
WATER CODE E 06	SEWER CODE 7570000	PERMITS TRACT 9367-03
TITLE		
Landscape Plan		
Des By	Scale	Proj. No.
Dm By	Date	92087A
Chk By	Approved	30 OF 32

TAMAR

DRIVE

PARKWAY

RIVER

SNOWDEN

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 14 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

Joseph M. Boyd, M.D. 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

James D. Smith 6/29/94
DIRECTOR DATE
Ann Shimmery 6/28/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE,
STORM DRAINAGE SYSTEMS AND PUBLIC ROADS,
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James J. Lee 6/21/94
DIRECTOR DATE
Charles W. Eason 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

5-2013	1	REDLINE REVISION NO. 1 - CHANGED SHEET NO.
Date	No.	Revision Description

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLICOTT CITY, MARYLAND 21042-6198

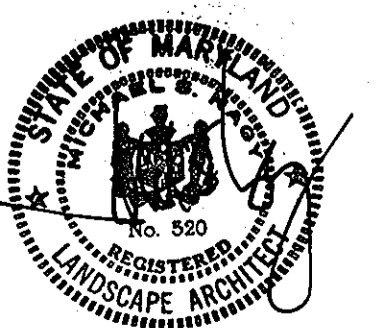
DMW
Dan-MacCusack-Walkers, Inc.
200 East Pennsylvania Avenue
Ft. Detrick, Maryland 21740
(410) 296-3833
Fax 296-4705
A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

SUBDIVISION NAME	SECTION/AREA	LOT/PARCEL
VILLAGE OF WOODBRIDGE	250 S. 1 Area 2	911 657
PLAT OF LT. BLOCK 41202	TAXING MAP ELEC. DISTRICT	6114
11276-731-7	7	6114
WATER CODE	SEWER CODE	CENSUS TRACT
6-06	350000	6114
TITLE		
SITING/BID 21 MARCH 94		
Landscape Plan		

Des By	MCM	Scale	1" = 40'	Proj. No.	92387A
Drn By	MCM	Date	1-12-94	31 OF 32	
Chk By		Approved		31 OF 32	

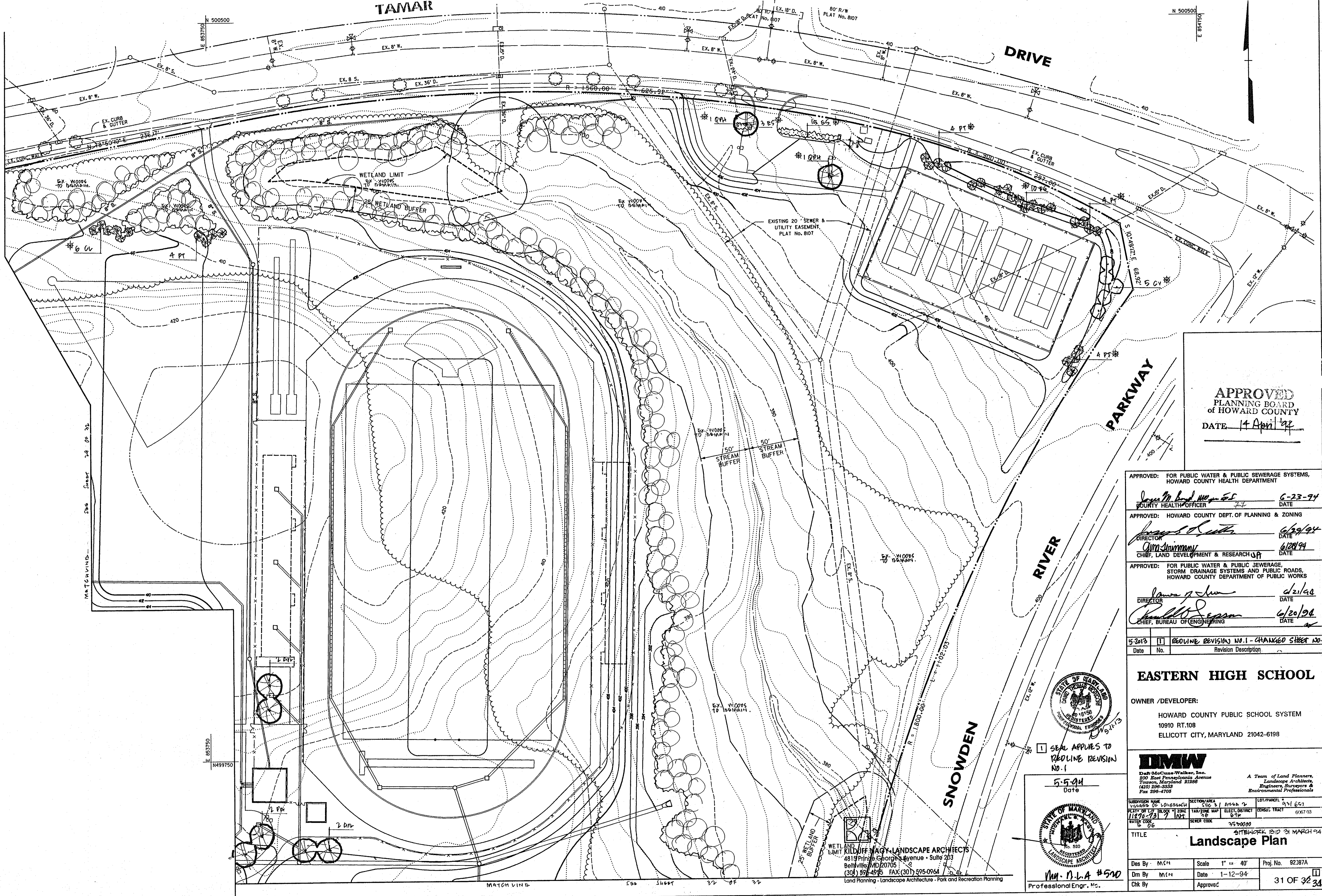


SEAL APPLIES TO
REDLINE REVISION
NO. 1
5-5-94
Date



DMW #500
Professional Engr., M.C.

KILDUFF MAGY LANDSCAPE ARCHITECTS
4813 Prince Georges Avenue - Suite 203
Beltville, MD 20705
(301) 974-4995 FAX: (301) 595-0964
Land Planning - Landscape Architecture - Park and Recreation Planning





**Howard County
Landscape Manual Tables**

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	B	
Linear Feet of Roadway Frontage/Perimeter	4130	
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	2040	
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	--	
Number of Plants Required	2090	1.1
Shade Trees	42	
Evergreen Trees	52	
Shrubs		
Number of Plants Provided	8	
Shade Trees	52	
Evergreen Trees	73	
Other Trees (2:1 substitution)		
Shrubs (10:1 substitution)		
(Describe plant substitution credits below if needed)		73 (36.5 shade)

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	C	
Linear Feet of Roadway Frontage/Perimeter		860
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	--	
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	--	
Number of Plants Required		21.5
Shade Trees		43
Evergreen Trees		--
Shrubs		
Number of Plants Provided		0
Shade Trees		43
Evergreen Trees		44
Other Trees (2:1 substitution)		
Shrubs (10:1 substitution)		
(Describe plant substitution credits below if needed)		44 (22.0 shade)

**SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING**

Number of Parking Spaces	520
Number of Trees Required	26
Number of Trees Provided	23
Shade Trees	20
Other Trees (2:1 substitution)	10 (10 shade)

**SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING**

Linear Feet of Perimeter	580
Number of Trees Required	8
Shade Trees	10
Evergreen Trees	
Credit for Existing Vegetation (No, Yes and %)	180'
Credit for Other Landscaping (No, Yes and %)	31%
Number of Trees Provided	4
Shade Trees	10
Evergreen Trees	8
Other Trees (2:1 substitution)	4 (4 shade)



SEAL APPLIES TO REVISION NO. 1

NOTE: THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.12A OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

**APPROVED
PLANNING BOARD
of HOWARD COUNTY**
DATE 4 April 94

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

Joseph M. Boyd 6-23-94
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Joseph H. Smith 6/29/94
DIRECTOR DATE
Anna Strummary 6/29/94
CHIEF, LAND DEVELOPMENT & RESEARCH DATE

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James P. Elmer 6/1/94
DIRECTOR DATE
Robert J. Egan 6/20/94
CHIEF, BUREAU OF ENGINEERING DATE

Date	No.	Revision Description
5-20-93	1	REVISION NO. 1 - CHANGED SHEET NO.

EASTERN HIGH SCHOOL

OWNER / DEVELOPER:
HOWARD COUNTY PUBLIC SCHOOL SYSTEM
10910 RT.108
ELLCOTT CITY, MARYLAND 21042-6198

DMW
Duff McCaskey-Walker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3338
Fax 296-4708
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

17-16-94
Date
Professional Engineer
No. 520
M.M. P.L.A. #520
Professional Eng. No. 520



Subdivision Name	Section/Area	Lot/Parcel
VILLAGE OF LONGREACH	SEC 7 Area 2	931 657
REVISION NO. 1	TAX/ZONE MAP	ELEC. DISTRICT
11270-931	7	614
WATER CODE	SEWER CODE	
6 06	7570000	

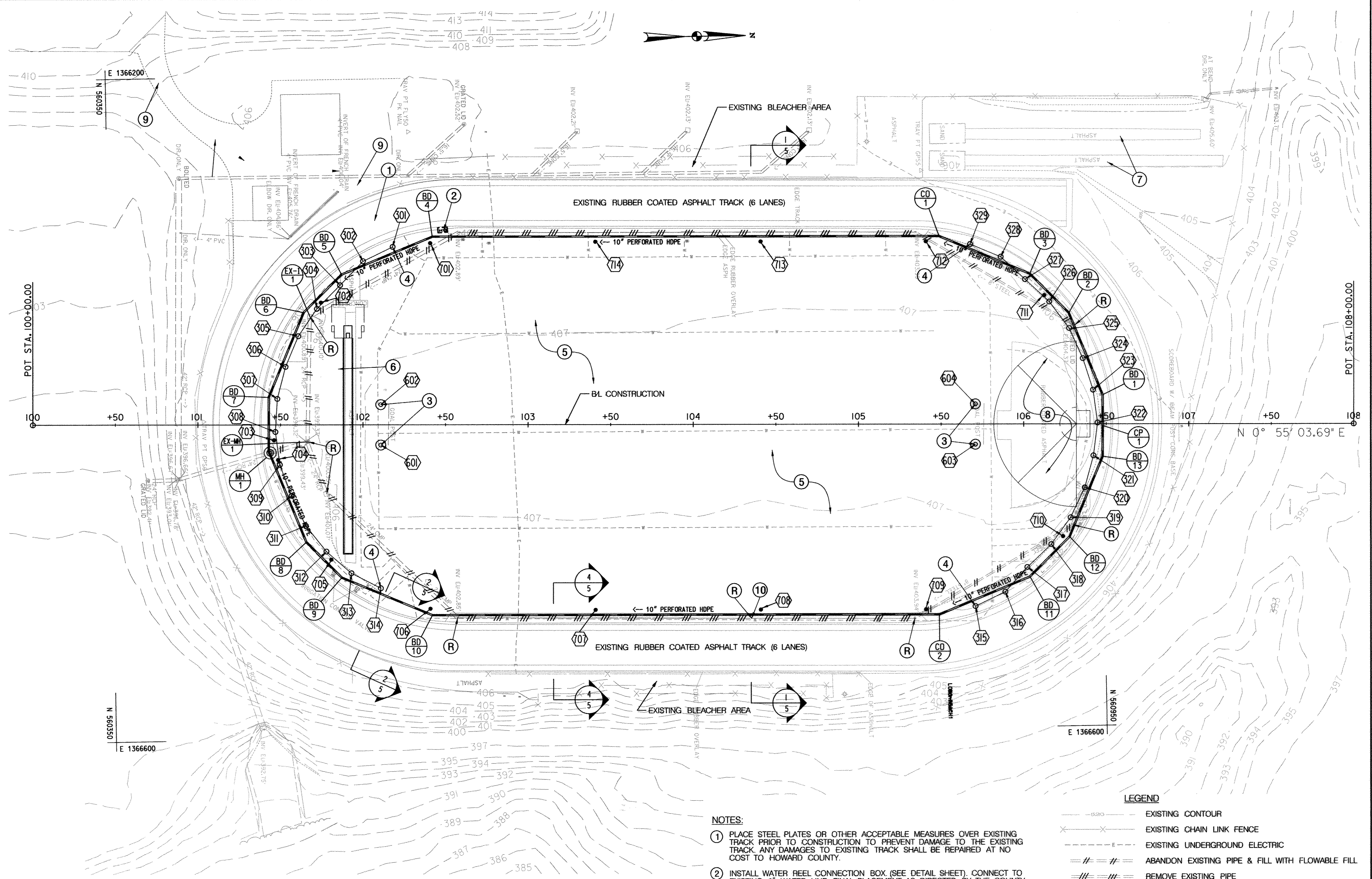
TITLE: **Landscape Plan**

Des. By	Scale	Proj. No.
M.S.N.	1" = 40'	92087A
Dm. By	Date	
M.S.N.	1-12-94	
Chk. By	Approve.	
		32 OF 32

POINT	NORTHING	EASTING	ELEVATION
301	560,522.3800	1,366,303.9000	406.41
302	560,504.2800	1,366,312.2100	406.41
303	560,490.1200	1,366,326.4600	406.65
304	560,475.8600	1,366,340.4800	406.59
305	560,464.2900	1,366,356.8000	406.57
306	560,456.2500	1,366,375.1800	406.59
307	560,450.9500	1,366,394.4000	406.65
308	560,449.4600	1,366,414.3400	406.69
309	560,451.8200	1,366,434.2000	406.62
310	560,458.6800	1,366,452.9900	406.60
311	560,466.9300	1,366,471.2100	406.59
312	560,479.1900	1,366,487.0100	406.64
313	560,494.0900	1,366,500.3500	406.72
314	560,511.7700	1,366,509.7000	406.85
315	560,871.5500	1,366,526.7800	406.39
316	560,889.7000	1,366,518.3900	406.39
317	560,903.3200	1,366,503.7400	406.60
318	560,918.0200	1,366,490.1800	406.53
319	560,930.0200	1,366,474.1800	406.49
320	560,938.9400	1,366,456.2800	406.50
321	560,944.4800	1,366,437.0600	406.54
322	560,947.2500	1,366,417.2500	406.60
323	560,944.8400	1,366,397.4000	406.54
324	560,938.9900	1,366,378.2800	406.50
325	560,930.9500	1,366,359.9600	406.48
326	560,919.2100	1,366,343.7700	406.52
327	560,904.7300	1,366,329.9800	406.59
328	560,890.2500	1,366,316.1800	406.44
329	560,871.9000	1,366,308.2100	406.47

POINT	NORTHING	EASTING	ELEVATION
601	560,513.1570	1,366,423.2982	407.29
602	560,513.5467	1,366,398.9679	407.29
603	560,873.1108	1,366,429.0640	407.29
604	560,873.5006	1,366,404.7337	407.29

POINT	NORTHING	EASTING
701	560,545.1029	1,366,302.0038
702	560,478.3375	1,366,336.7630
703	560,448.5502	1,366,419.3174
704	560,450.7947	1,366,431.2108
705	560,482.0358	1,366,491.9681
706	560,541.5698	1,366,522.5662
707	560,641.5444	1,366,524.9499
708	560,741.5316	1,366,526.5515
709	560,841.5188	1,366,528.1531
710	560,925.2174	1,366,485.4595
711	560,916.1955	1,366,339.8456
712	560,845.0770	1,366,306.0265
713	560,745.0898	1,366,304.4249
714	560,645.1026	1,366,302.8233



NOTES:

- 1 PLACE STEEL PLATES OR OTHER ACCEPTABLE MEASURES OVER EXISTING TRACK PRIOR TO CONSTRUCTION TO PREVENT DAMAGE TO THE EXISTING TRACK. ANY DAMAGES TO EXISTING TRACK SHALL BE REPAIRED AT NO COST TO HOWARD COUNTY.
- 2 INSTALL WATER REEL CONNECTION BOX. (SEE DETAIL SHEET). CONNECT TO EXISTING 3" WATER LINE. FINAL PLACEMENT AS DIRECTED BY THE COUNTY.
- 3 HOWARD COUNTY TO FURNISH SOCCER/FOOTBALL GOAL POSTS. CONTRACTOR SHALL INSTALL THE GOAL POST FOUNDATIONS WITH SLEEVES.
- 4 SAFETY NETTING SLEEVES. CONTRACTOR MUST COORDINATE WITH PLACEMENT OF UNDERDRAIN.
- 5 FIELD TURF, SEE DETAIL (1/5)
- 6 POLE VAULT (SEE SHEET 6 FOR STAKEOUT).
- 7 EXISTING LONG JUMP/TRIPLE EVENT TO REMAIN.
- 8 HIGH JUMP (SEE SHEET 8 FOR STAKEOUT).
- 9 THE CONTRACTOR SHALL REPAIR ANY DAMAGED ASPHALT OR CONCRETE AREAS AS A RESULT OF THE PROPOSED USE DURING CONSTRUCTION.
- 10 REMOVE EXISTING TRENCH DRAIN AND GRATE.

LEGEND

- - - - - EXISTING CONTOUR
- - - - - EXISTING CHAIN LINK FENCE
- - - - - EXISTING UNDERGROUND ELECTRIC
- - - - - ABANDON EXISTING PIPE & FILL WITH FLOWABLE FILL
- - - - - REMOVE EXISTING PIPE
- SAFETY NETTING SLEEVES
- Ⓡ REMOVE EXISTING STRUCTURE/PLUG PIPES
- Ⓞ COMBATION GOAL GROUND SLEEVE
- MH MANHOLE
- BD BEND
- CP COUPLING
- CO CLEAN-OUT
- EARTH BERM STONE OPENING (SEE DETAIL ON SHEET NO. 5)

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division *[Signature]* 7/15/13
 Chief, Division of Land Development *[Signature]* 7/10/13
 Director *[Signature]* 7/13/13

PROFESSIONAL CERTIFICATION

"I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16156 EXPIRATION DATE: 8/28/2014"

Standard Stabilization Note

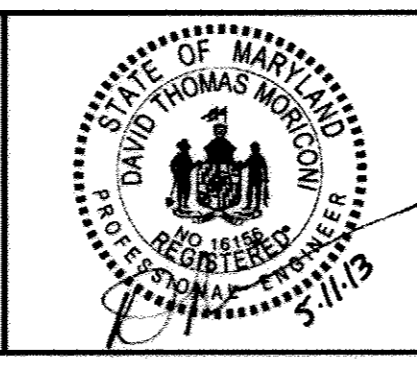
Following initial soil disturbance or re-disturbance, permanent or temporary stabilization must be completed within:

- a.) Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and
- b.) Seven (7) calendar days as to all other disturbed or graded areas on the project site not under active grading.

HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HOWARD COUNTY, MARYLAND

[Signature] 6/19/13
 ASSISTANT MANAGER OF RECREATION SERVICES
 HOWARD COUNTY PUBLIC SCHOOL SYSTEM

PREPARED BY
URS
 4 NORTH PARK DRIVE
 HUNT VALLEY, MARYLAND
 TEL: (410) 785-7220



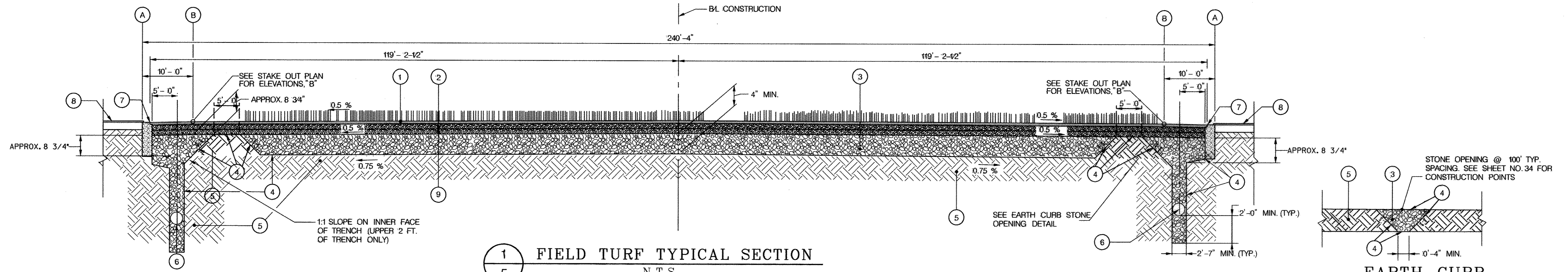
DES:	RLL				
DRN:	CFD				
CHK:	DTM				
DATE:	6/13	DTM	1	S.D.P. REDLINE NO. 1 (NEW SHEET)	5/13
		BY	NO.	REVISION	DATE

SITE PLAN

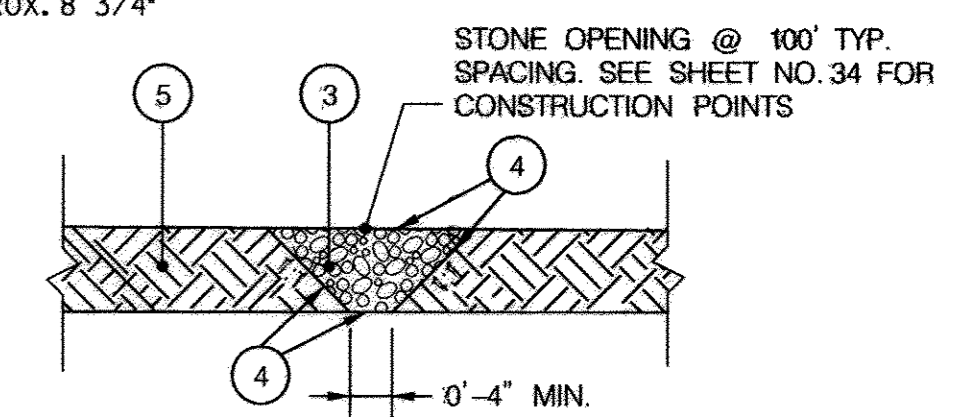
SCALE MAP NO. N/A BLOCK NO.

LONG REACH (EASTERN) HIGH SCHOOL
 FIELD IMPROVEMENTS
 6TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

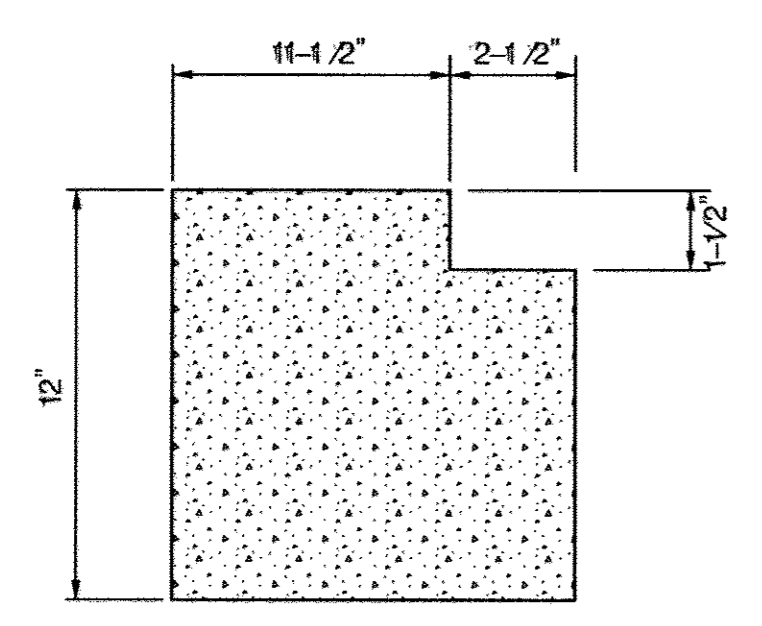
SCALE
 1" = 30'
 SHEET
 34 OF 34



1 FIELD TURF TYPICAL SECTION
5 N.T.S.

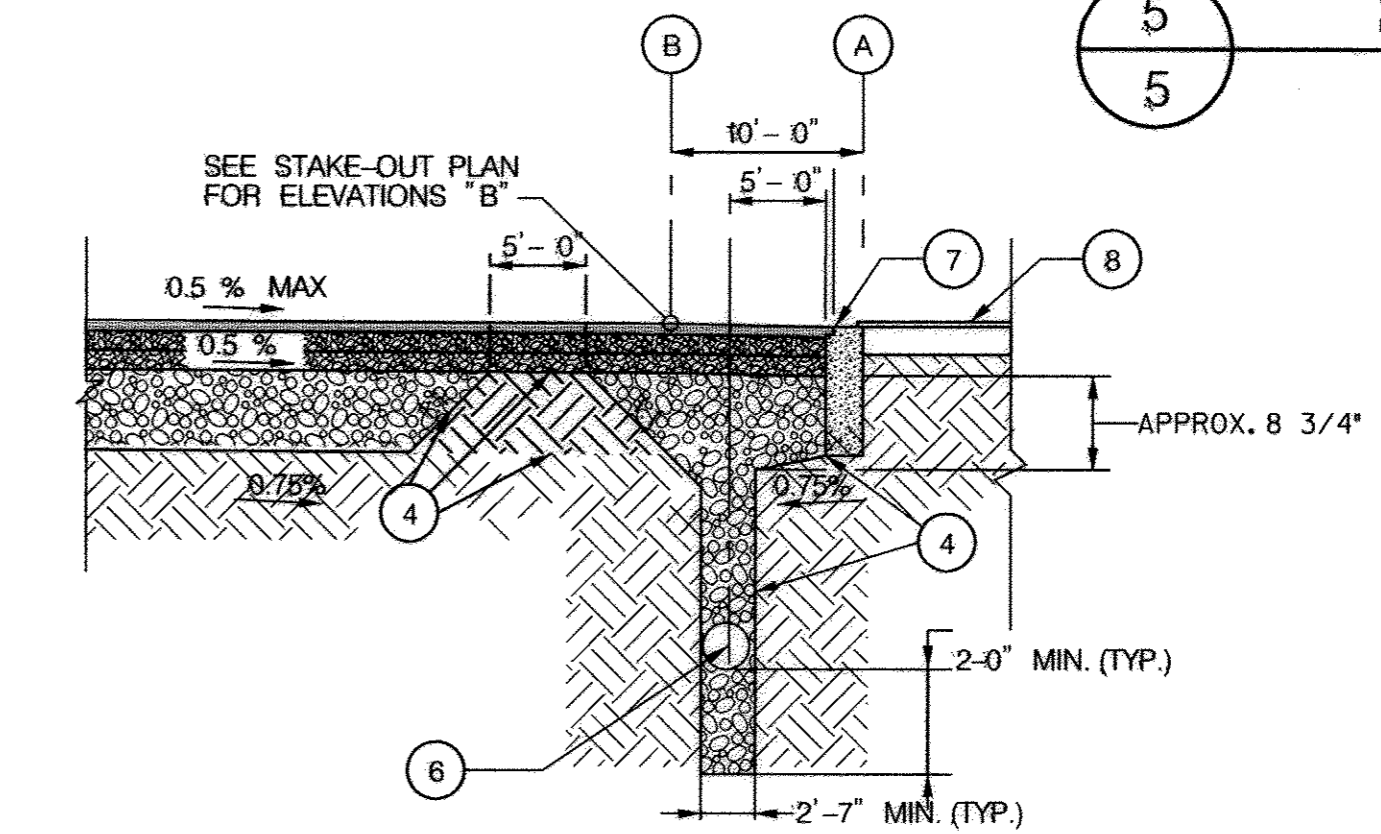


5 EARTH CURB STONE OPENING
5 N.T.S.

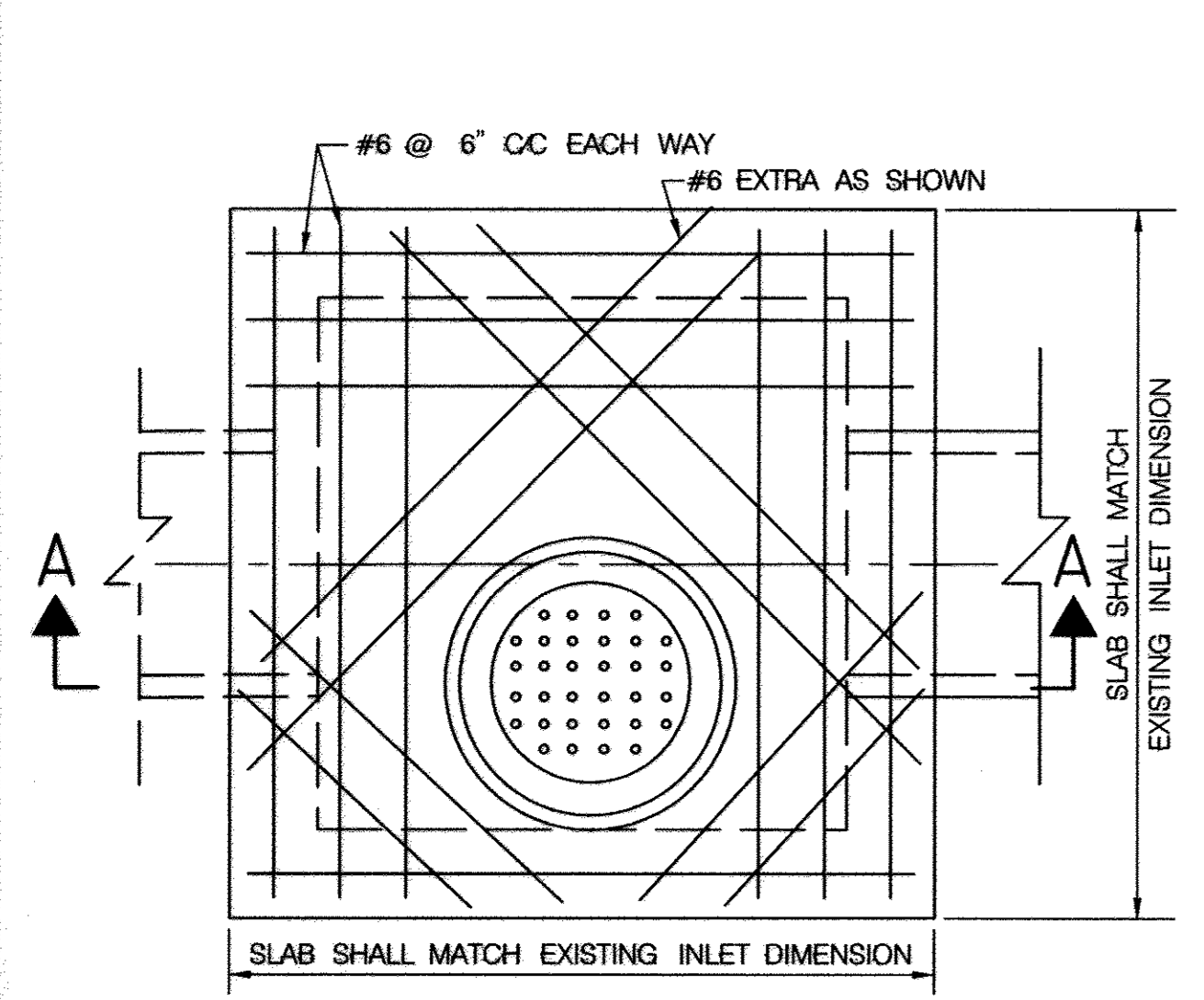


3 NAILER NOTCH
5 N.T.S.

- LEGEND
- 1 2 - 12" PILE FIELD TURF WITH 1 - 3/4" OF INFILL.
 - 2 1" OF FINISHING STONE AS PER SPECIFICATIONS, COMPACTED TO 95% PROCTOR AND GRADED TO WITHIN 0 - 1/2" OF DESIGN GRADE AND WITHIN 0 - 1/4" IN 10 FEET (USE LASER GUIDED GRADER).
 - 3 VARIABLE DEPTH (MIN. 4" @ CENTER) #2 BASE STONE.
 - 4 GEOTEXTILE (MIRAFI 140N OR EQUAL) LINING THE TRENCH AND UNDER THE BASE.
 - 5 NATURAL SOIL COMPACTED TO 95% PROCTOR.
 - 6 10" DIAMETER PERFORATED COLLECTOR PIPE, SLOPE AT 0.5 %.
 - 7 CONCRETE CURB (SEE DETAILS THIS SHEET)
 - 8 EXISTING RUBBER COATED TRACK.
 - 9 1" OF #8 STONE.
 - 10 RUBBER COATING ON TRACK.
 - 11 FULL DEPTH SAWCUT AT CENTER OF PAINT LINE.
 - 12 CENTER OF WHITE PAINT LINE - MATCH EXISTING.

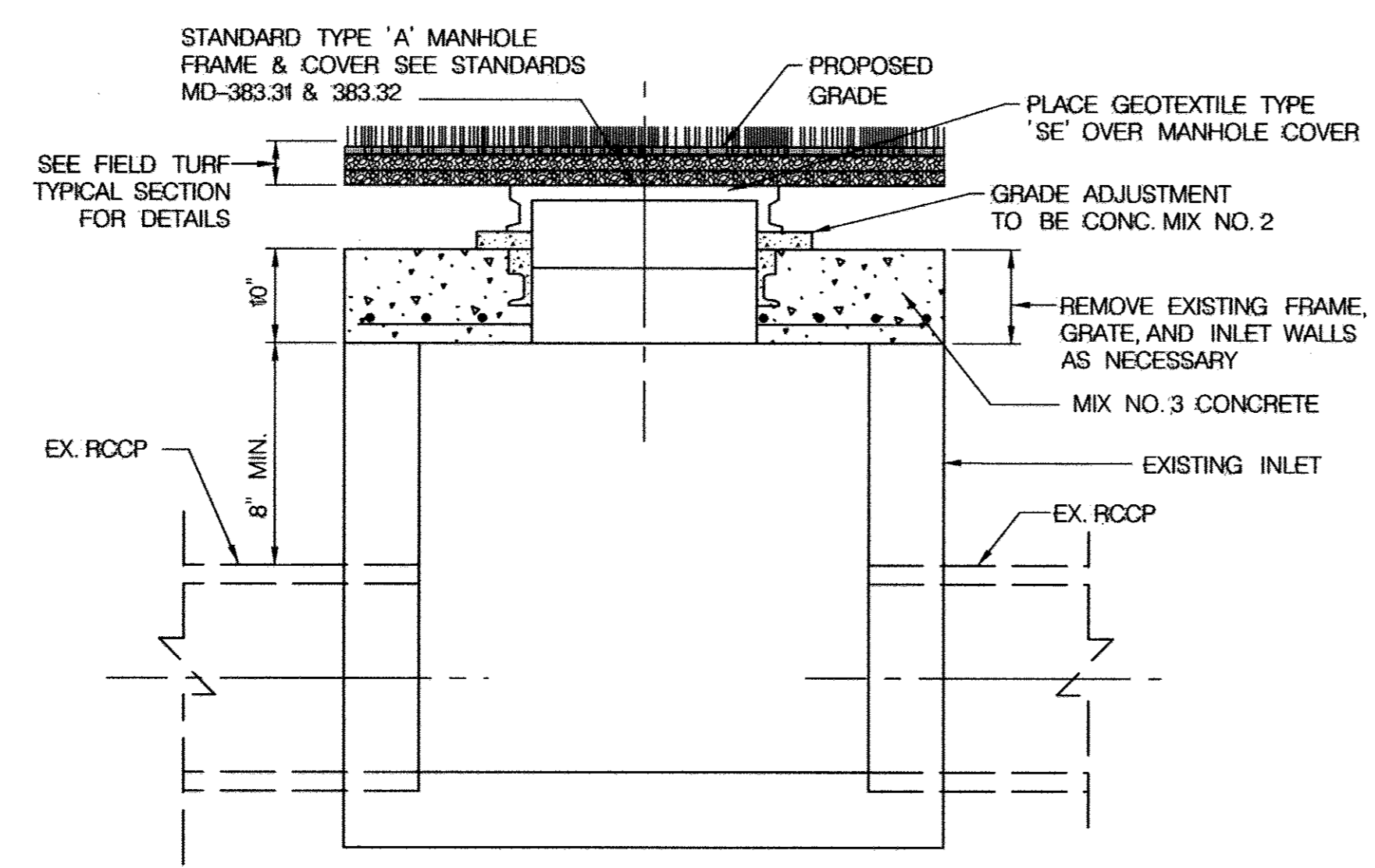


2 "D" SEMI-CIRCLE FIELD TURF TYPICAL SECTION
5 N.T.S.

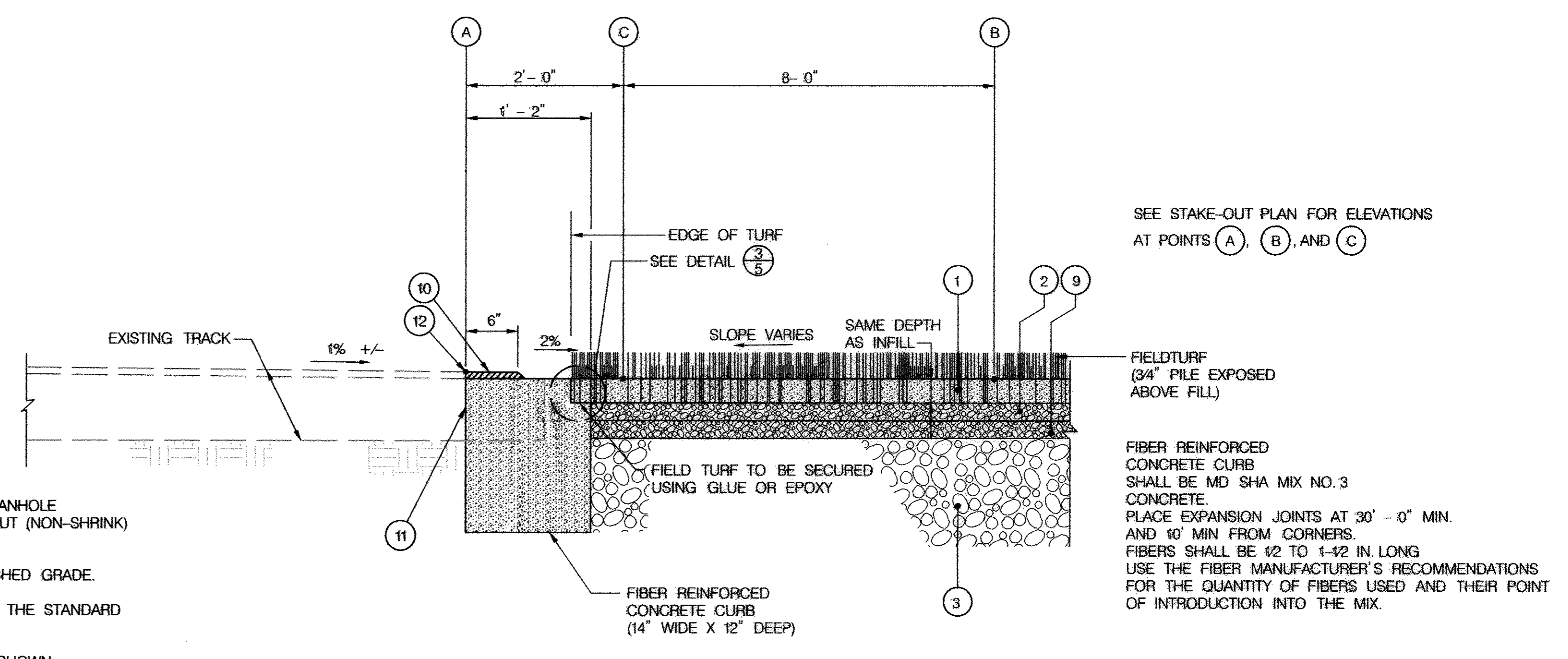


NOTE:
MANHOLE FRAME AND COVER TO BE PLACED AS SHOWN.

GRATE INLET TO MANHOLE CONVERSION
NOT TO SCALE



- NOTES
1. CUT AN OPENING IN THE EXISTING CONVERTED MANHOLE TO ACCOMMODATE THE NEW PIPE BRICK AND GROUT (NON-SHRINK) EXISTING OPENINGS AND GROUT NEW PIPE.
 2. SET FRAME AND COVER TO MEET PROPOSED FINISHED GRADE.
 3. SEE MARYLAND STANDARD MD-383.31 & 383.32 FOR THE STANDARD TYPE 'A' MANHOLE FRAME AND COVER.
 4. MANHOLE FRAME AND COVER TO BE PLACED AS SHOWN.



4 CONCRETE CURB EDGE
5 N.T.S.

PROFESSIONAL CERTIFICATION
"I HEREBY CERTIFY THAT DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16156, EXPIRATION DATE: 8/28/2014."

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division: *[Signature]* 7/3/13
 Chief, Division of Land Development: *[Signature]* 7/3/13
 Director: *[Signature]* 7/3/13

HOWARD COUNTY PUBLIC SCHOOL SYSTEM
 HOWARD COUNTY, MARYLAND
 6/14/13
 DATE

PREPARED BY
URS
 4 NORTH PARK DRIVE
 HUNT VALLEY, MARYLAND
 TEL: (410) 785-7220



DES:	RLI		
DRN:	CDF		
CHK:	DTM		
DATE:	6/13		
DTM	1	S.D.P. REDLINE NO. 1 (NEW SHEET)	6/13
BY	NO.	REVISION	DATE

SITE DETAILS I
 SCALE MAP NO. N/A BLOCK NO.

REVISED SITE DEVELOPMENT PLAN
 LONG REACH (EASTERN) HIGH SCHOOL
 FIELD IMPROVEMENTS
 6TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 33 OF 34
 SDP 94-76